

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



Entered at the Post Office at Chicago, Ill., for transmission through the mails at second-class rates.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY
(INCORPORATED).

VOL. XXIV.

CHICAGO, ILLINOIS, MARCH 15, 1906.

No 9.

{ ONE DOLLAR PER ANNUM,
SINGLE COPY, TEN CENTS.

Belt Conveyors Car Pullers
Shovel Machines
Friction Clutches Rope Drives

All made from our own improved patterns and specially
designed for Modern Grain Elevators.

Complete Equipments Furnished

Stephens-Adamson Mfg. Co.

Main Office and Works
AURORA, ILL.

Chicago Office
First National Bank Bldg.

WE ARE MAKERS NOT AGENTS



We
make
them
ALL

BURRELL MFG. CO., Bradley, Ill.



YOU NEED A

Muir Improved
Friction Clutch
Pulley

Great power in small space;
long life; ease of adjustment.
We carry them in stock and
guarantee every one. The
only friction clutch for clip-
per and cleaner drives, be-
cause they can be adjusted
while the shaft is running.

Skillin & Richards Mfg. Co., Chicago

We are originators and manufacturers of

Cold Rolled Spiral Steel Conveyor

Made interchangeable with other kinds, but wears much better. Cold rolled—which means that the steel has not been softened in the furnace and dropped into shape. Costs no more than other kinds.



We make all kinds of **MACHINERY FOR GRAIN ELEVATORS**. We send Pinch Bars on trial. Our Sprocket Wheels and Chain are the best. We also make Pulleys, Shafting, Hangers, Car-loading Spouts, etc. Write for Catalogue.

SALEM BUCKETS
ARE GOOD ONES

We manufacture in large quan-
tities, carry all sizes in stock and
make prices that are hard to beat.
Send us your next order.



ALFALFA

The Williams Pat. Alfalfa Hay

CUTTER and GRINDER

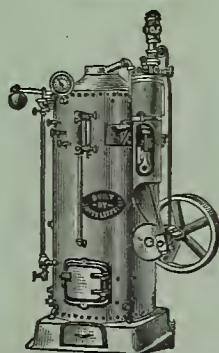
WE BUILD COMPLETE PLANTS—BUILT 12 PLANTS IN 1905

Write For Bulletin No. 6

THE WILLIAMS PAT. CRUSHER & PULVERIZER CO.

Old Colony Bldg.
Chicago

2705 N. Broadway
St. Louis



HOLD

your order for a power outfit until you have looked into
the merits of our

**LEFFEL ENGINES and
BOILERS**

The small upright shown here is but one of the large number
of styles and sizes we make. This one is specially adapted
to use where space for setting is limited.
It is a perfect power for

GRINDING, SHELLING, ELEVATING, ETC.

Very simple, safe and efficient. Takes but little fuel, waste cobs furnishing more than
enough. Don't buy a power of any kind until you write us for estimates, etc.
Send for our free book, "Power Economy and Efficiency."

JAMES LEFFEL & CO., Box 158, Springfield, Ohio

Corn Shellers?

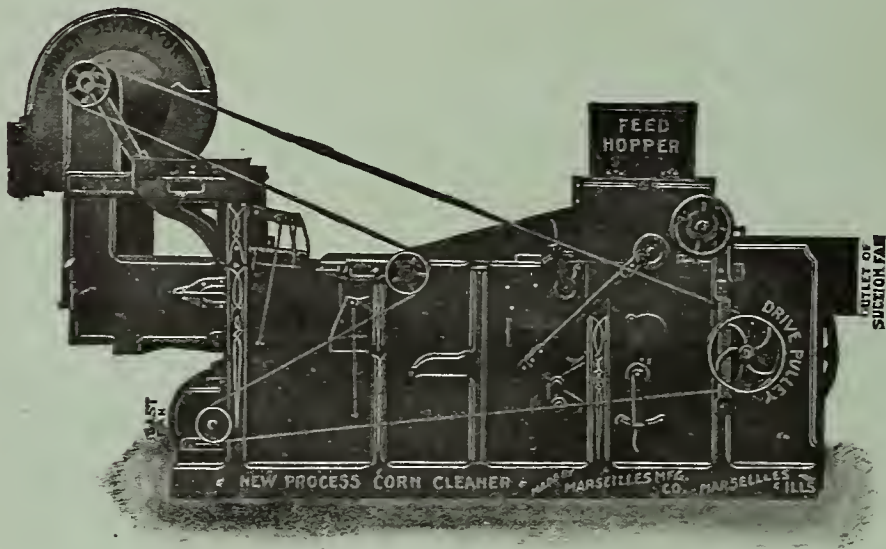
Do We Make 'Em?

*Well, just ask us for a copy
of our Catalogue No. 35*

It tells all about the best and most complete line of Corn Shelling Machinery manufactured. We make Shellers and Cleaners as separate machines. Also a complete line of

Combined Shellers and Cleaners

for shelling both husked and unhusked corn.



NEW PROCESS CORN CLEANER, WITH SHUCK SEPARATING FAN.



MARSEILLES MFG. CO.

NEW PROCESS CORN SHELLER ONLY.

The New Process Combined Shuck Sheller and Cleaner is the only machine that can be fitted for either husked corn of Northern States or the unhusked corn of Southern States.

*If you're going to buy a Corn Sheller
or Corn Cleaner, get a New Process.*

We are also manufacturers of Power Transmission Appliances and Grain Elevating and Conveying Machinery. We solicit specifications and the privilege of quoting on any requirements in this line.

Marseilles Mfg. Co. MARSEILLES, ILLINOIS.
BRANCHES

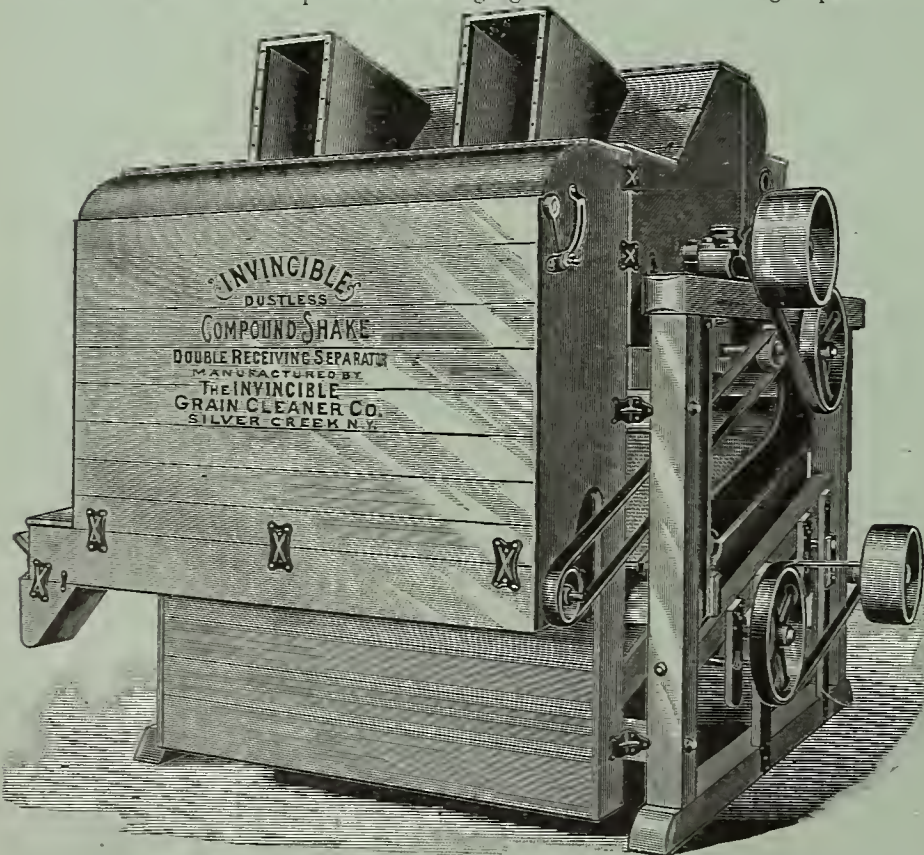
Peoria, Ill.

Council Bluffs and Cedar Rapids, Ia.

Kansas City, Mo.

GET THE BEST

The INVINCIBLE Compound shake HIGH-GRADE Separators.
No shake, no tremble, run perfectly steady. Can be placed anywhere in the elevator.
The INVINCIBLE Compound shake high-grade Double Receiving Separator.



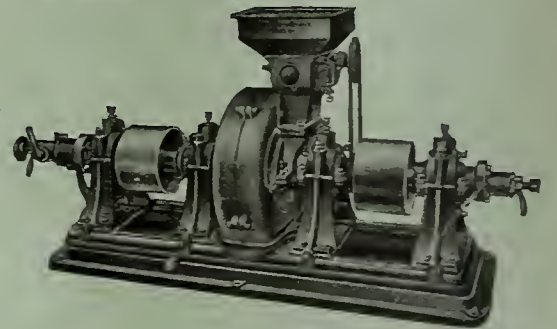
INVINCIBLE GRAIN CLEANER COMPANY
SILVER CREEK, N. Y., U. S. A.

REPRESENTED BY

Geo. J. Noth, 501-502 Traders' Bldg., Phone, Harrison 667, Chicago, Ill.
Edward A. Ordway, 612 Exchange Bldg., Kansas City, Mo.
Chas. H. Scott, 307 So. 3d Street, Minneapolis, Minn.
C. L. Hogle, 5239 East Washington St., Indianapolis, Ind.
N. B. Trask, Lochiel Hotel, Harrisburg, Pa.
Portland Iron Works, Portland, Ore.

A Fast, Fine Grinder

Built for Business



Monarch Attrition Mills

are working in all parts of the country, under all conditions, and are giving satisfaction everywhere. There are reasons for this, of course. In the first place our mill is designed right. Then it is constructed of the best materials, in one of the finest shops in the country, by high-priced, skilled mechanics.

Among the special features are: Phosphor-bronze interchangeable bearings; cable-chain oilers; double movable base; safety spring; quick release; relief spring; special adjustable Endless Belt drives; hammered steel shafting; ball bearings, and other improvements not found in competing mills.

A STRONG GUARANTEE

is given with every mill. We want you to test it thoroughly. It will meet every claim we make for it. If you need a mill write to-day for our feed mill catalogue. Ask for samples for comparison. We will gladly send them.

SPROUT, WALDRON & CO.

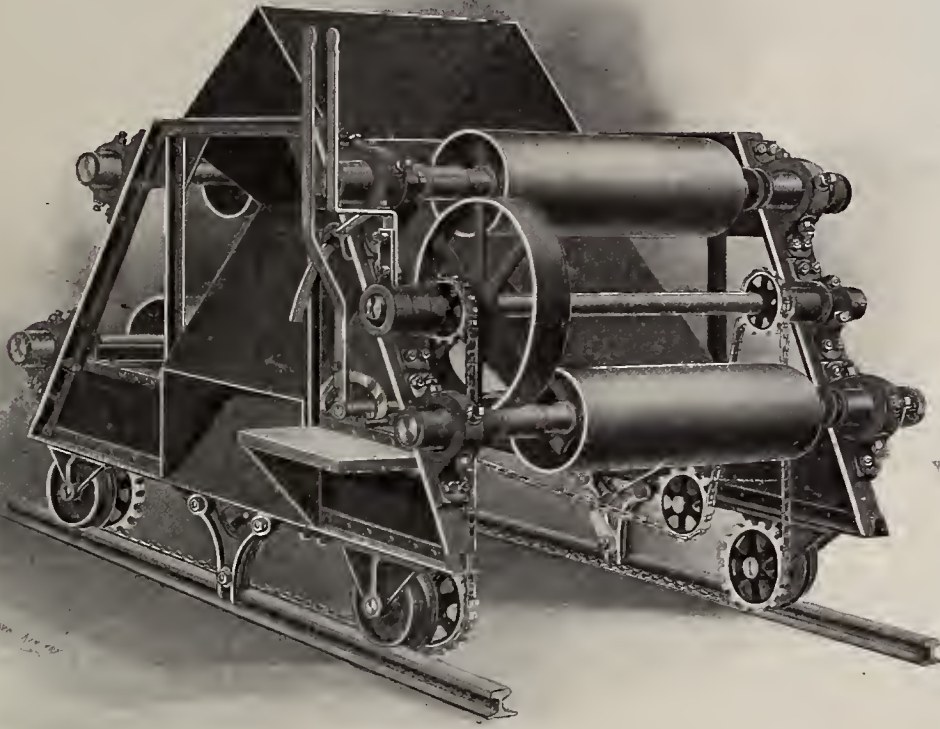
Northwestern Branch:
22-28 and 30 Corn Exchange, MINNEAPOLIS, MINN.

Box 320, Muncy, Pa.

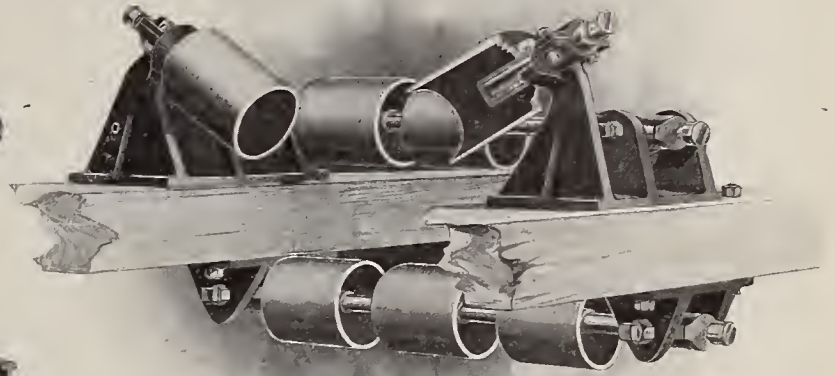
Modern Grain Elevator Machinery

We manufacture a full line of Trippers, Belt Conveyor Appliances, Power Shovels, Car Pullers, Boots, Buckets, Turnheads, Spouting, Shafting, Pulleys, Bearings, Rope Sheaves, Etc., Etc.

Machinery buyers will do well to write us.



IMPROVED STEEL FRAME REVERSIBLE SELF-PROPELLING TRIPPER



IMPROVED DUSTPROOF CONCENTRATING AND RETURN ROLLERS

Largest Manufacturers of Grain Elevator Machinery West of the Mississippi

Kingsland - Kay - Cook Mfg. Co., St. Louis

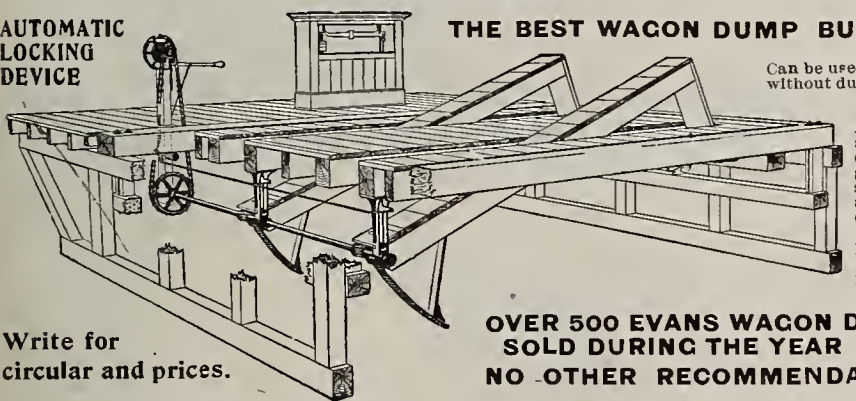
Chicago Office: 401 Monadnock Bldg.

The Evans Controllable Wagon Dump.

AUTOMATIC
LOCKING
DEVICE

THE BEST WAGON DUMP BUILT

Can be used with and
without dump scales.



Absolute
safety
control,
great
strength
and
durability.
Patented
April 12,
1898.

Write for
circular and prices.

OVER 500 EVANS WAGON DUMPS
SOLD DURING THE YEAR 1905.
NO OTHER RECOMMENDATION!

MOULTON & EVANS,

909 E. 18th Street, Minneapolis, Minn.

PERFECTION

Is reached for an Elevator and Warehouse Separator in our Minneapolis No. 105



We are in a position to offer to the grain trade a line of Grain Cleaning Machinery that surpasses anything manufactured.

Write for complete catalog.

J. L. OWENS COMPANY,
615 Superior St., S. E., MINNEAPOLIS, MINN.



TRADE
"CYCLONE"
MARK

"THE KNICKERBOCKER"
CYCLONE

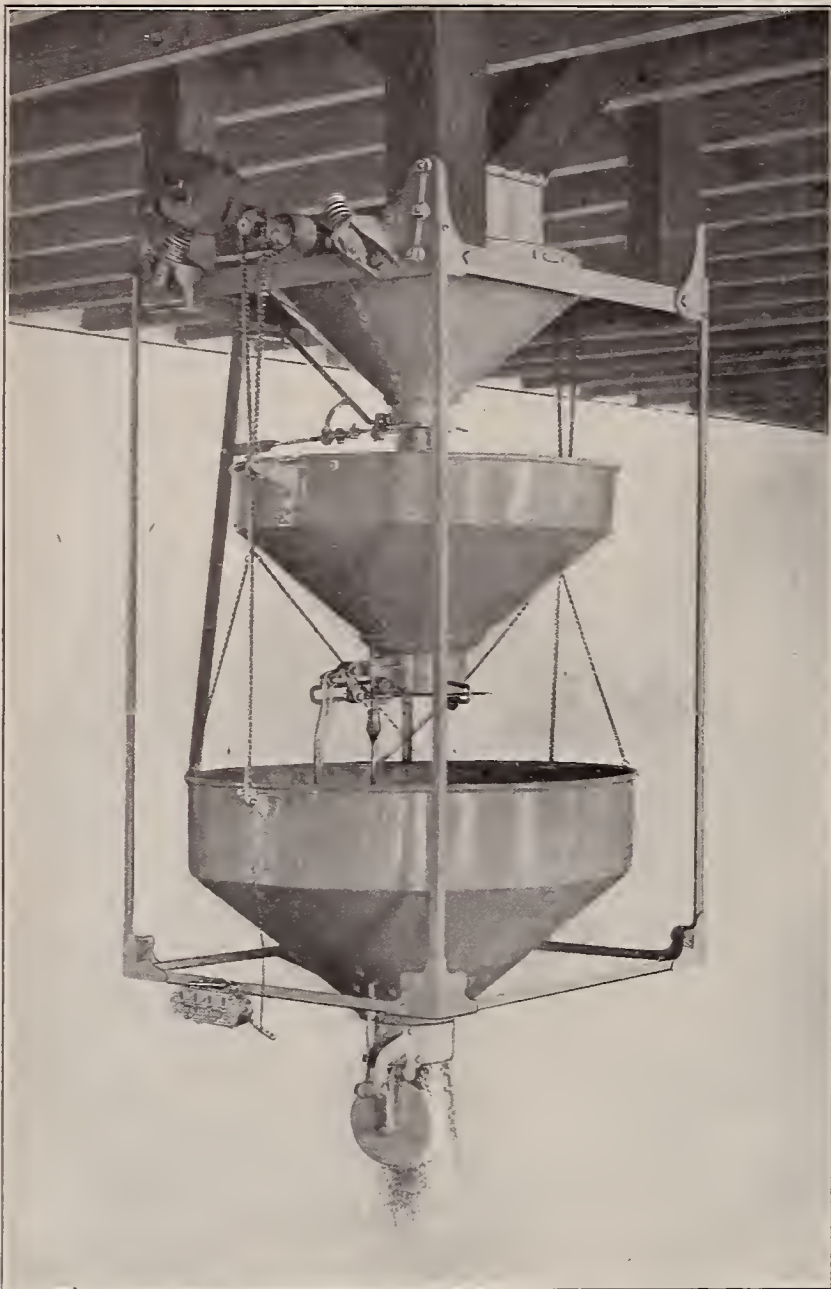
"The New 1905"

HANDLES
40% MORE AIR

Ensuring Separators,
Clippers, Cleaners

MORE WORK - BETTER WORK

The Knickerbocker Co.
JACKSON, MICH.



The American Grain Meter

For Automatically and Correctly

Weighing Grain While Loading or
Unloading Cars

Owned and Built Exclusively by

THE AMERICAN GRAIN METER CO.

(Successor to The Bowlus Automatic Scale Co.)

Springfield, Ohio

R. & J. ERVIN

Grain, Broom Corn and Seeds

Tuscola, Ill., February 1, 1906.

The American Grain Meter Co., Springfield, Ohio.

Gentlemen:—Fifteen months ago we bought one of your Automatic Scales and have since used it exclusively for weighing our grain from the elevator here. This season we have already weighed 150,000 bushels of corn and 50,000 bushels of oats, in cars mostly for seaboard points.

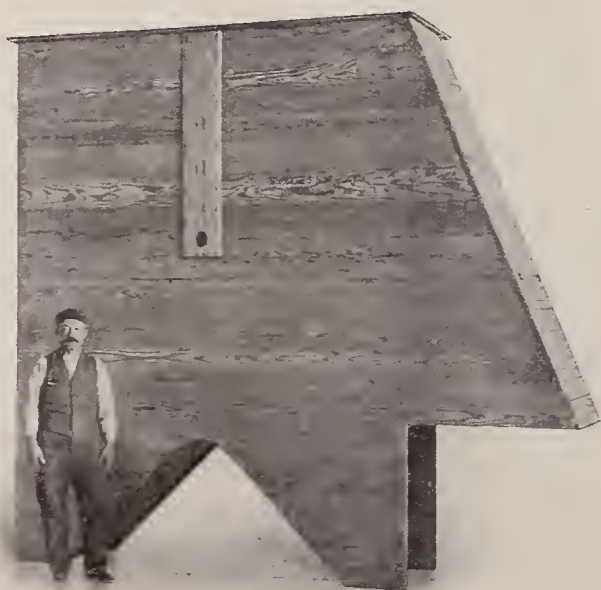
The railroad company recently paid shortage claims to us amounting to nearly \$600.00. Before doing so the claim agent of the railroad company came here to check up our weights. He remained one whole day and made many tests of your scales, every one of which proved its accuracy. He returned to Chicago and in a few days we received a check in full of our claims.

This is the second time this has occurred, and because of its proved accuracy and reliability we would be willing to buy a Bowlus Automatic Scale for every 150,000 bushels of grain we handle.

Yours truly, R. & J. ERVIN.

HEADS AND BOOTS

For Elevators



There is a large department in our shops which is busily engaged in building elevator heads and boots of all sizes and descriptions.

The designs have been approved by Fire Insurance Underwriters and the very best materials are used in construction.

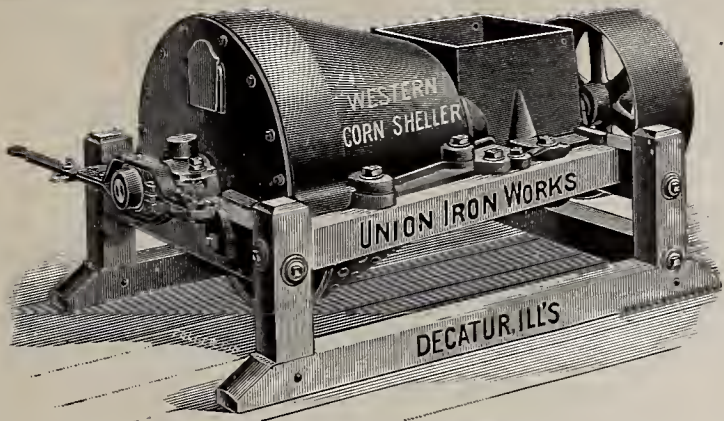
A large and well assorted line of tin and iron elevator buckets, of our own manufacture, is carried and orders will receive prompt attention.

NORDYKE & MARMON CO.

America's Leading Mill Builders

ESTABLISHED 1851

INDIANAPOLIS, INDIANA



Western Warehouse Sheller

WRITE FOR CATALOG WITH CUTS AND FULL
DESCRIPTIONS TO

UNION IRON WORKS

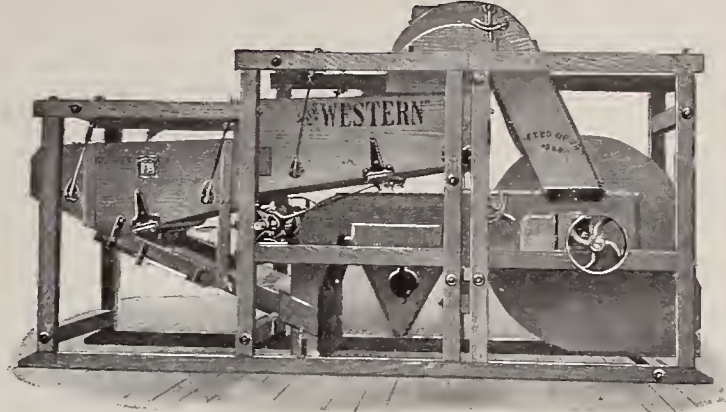
DECATUR, ILL.

Are You Building a New Elevator?
Are You Remodeling Your Old One?

IF SO, EQUIP IT WITH

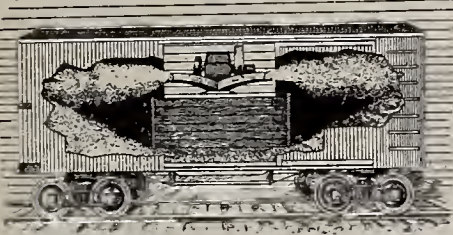
"Western" Machinery

Plans furnished
upon application



"Western" Shaker Cleaner

A GOOD CAR LOADER



Is a necessary part of the equip-
ment of a modern grain elevator.

THE BOSS CAR LOADER

is the best device of its class. Its
installation means a positive sav-
ing in loading out your grain. If
you will write us to-day we will
send you full particulars and tell
you why you cannot afford to use
any other loader.

MAROA MFG. CO.

Maroa, Ill.

FIRE PROTECTION

THERE IS NONE BETTER THAN THAT AFFORDED BY WELL
FILLED FIRE BUCKETS

The use of **CALCIUM CHLORIDE SOLUTION** in place of **SALT
BRINE** has these advantages:

It does not evaporate	It does not become foul
It has no effect upon iron	It does not freeze at low temperatures
It is endorsed by insurance underwriters	

The Solvay Process Co.'s **CALCIUM CHLORIDE** is the best, its
freezing point being 54° below Zero Fahr.

It is the best water jacket solution for gasoline engines.

For further
information address

CARBONDALE CHEMICAL CO. 739 Unity Bldg.,
CHICAGO, ILL.

SCIENTIFIC

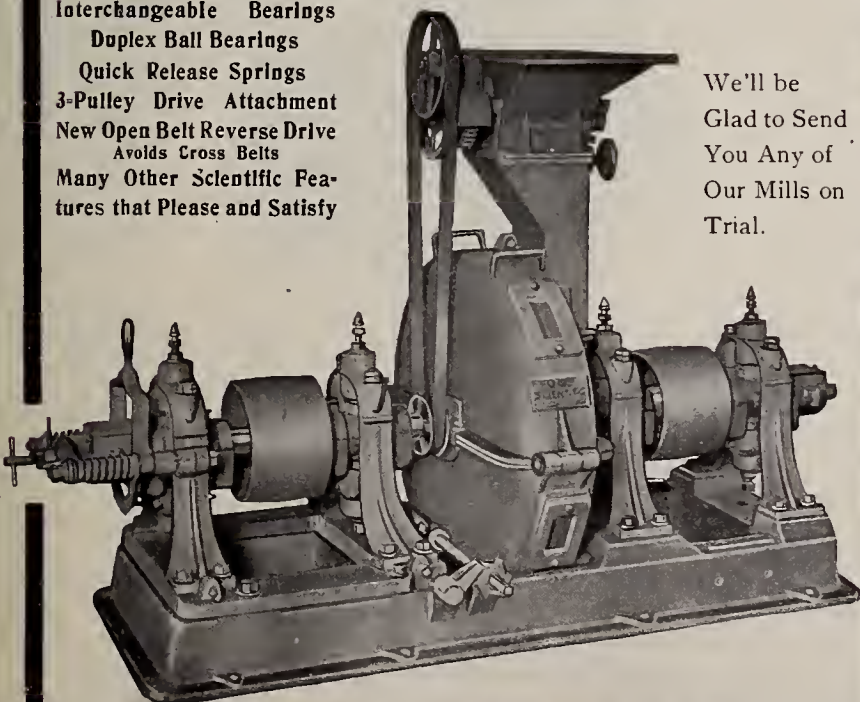
ATTRITION MILLS

GRIND FOR
PROFIT

Exclusive Features

Interchangeable Bearings
Duplex Ball Bearings
Quick Release Springs
3-Pulley Drive Attachment
New Open Belt Reverse Drive
Avoids Cross Belts
Many Other Scientific Fea-
tures that Please and Satisfy

We'll be
Glad to Send
You Any of
Our Mills on
Trial.



A Live Member of That Vigorous "Best on Earth" Family

Grinds Ear Corn, Chop Feed, Bran, Offal and all
Small Grains, Cracks Corn, Etc.

Fast, Fine Grinding

THE FOOS MFG. CO.
SPRINGFIELD, OHIO.

SEND FOR CATALOGUES

ANNOUNCEMENT:

We are now prepared to furnish

WATERPROOFED

**"AMERICAN" TRANSMISSION
ROPE**

"The Rope to Remember"

Not affected by water; variations in
weather will not cause it to shrink
or stretch.

THE
ONLY ROPE
FOR
COAL MINES
COTTON GINS
CEMENT MILLS
RICE PLANTATIONS
PAPER AND PULP MILLS
AND
ALL OUTDOOR DRIVES

THE AMERICAN MFG. CO.
MANILA - SISAL - JUTE - CORDAGE
65 WALL STREET, NEW YORK
CHICAGO BRANCH, 85 KINZIE ST.

"THE BLUE BOOK OF ROPE TRANSMISSION"
SENT FREE UPON REQUEST



Genuine Salem Buckets

The Genuine Salem Bucket is light, serviceable and correctly shaped. Enters the material easily, carries maximum load and empties clean. Different gauges of steel suitable for handling any material. Made only by The W. J. Clark Co., Salem, Ohio.

Imitations are no cheaper. Watch for the Clark Stamp. **We are Sole Agents.** Large stock. Prompt shipments. Catalogue "S."

H. W. Caldwell & Son Co.

CHICAGO, 17th St. and Western Ave.

NEW YORK, 95 Liberty St.

Woodward, Wight & Co., Ltd., New Orleans

Screw Conveyors



Unquestionably our Helicoid (continuous flight conveyor) is the best screw conveyor made. We are the originators of and fully equipped to make sectional flight conveyor also, but advise customers to use Helicoid, because it is better balanced and more durable than any other screw conveyor, and renders more satisfactory service.

Helicoid conveyor is well adapted to the handling of grain and all milling products; cotton seed and cotton seed products, fertilizers, sugar, starch, rice, coal, ashes, cement, concrete, phosphate, sawdust, and many other articles.

Helicoid costs no more than other conveyors.

H. W. Caldwell & Son Co.

CHICAGO, Western Ave., 17th-18th St.

NEW YORK, 95 Liberty St.

Woodward, Wight & Co., Ltd., New Orleans

ELEVATOR-FACTS

"Rubber belting taken up twelve (12) times
LEVIATHAN TWICE"

SEND FOR "FACTS."

MAIN BELTING COMPANY

Philadelphia, Boston
and Buffalo

55-57 Market St., Chicago, Ill.



The "Eureka" Corn Dryer



If you are handling and exporting corn you can make money rapidly with an

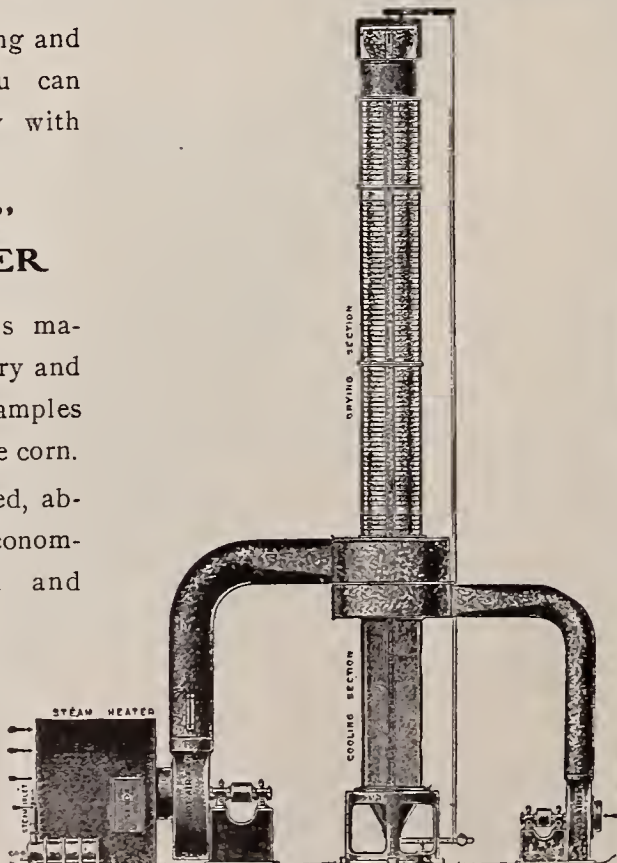
"EUREKA" CORN DRYER

We guarantee this machine to perfectly dry and condition the worst samples of damp and off-grade corn.

It is easily installed, absolutely automatic, economical in operation and moderate in cost.

Many in use. Numerous references upon application.

May we tell you more about it?



THE S. HOWES CO.

EUREKA WORKS

Silver Creek, - N. Y.



Dixon's Silica Graphite Paint

For the Preservation of all Classes of Metal and Wood.

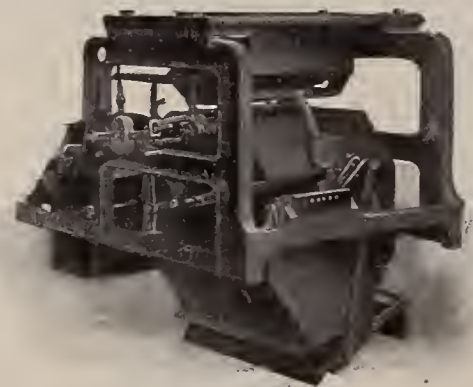
WRITE FOR ILLUSTRATED FOLDER, B-17

JOSEPH DIXON CRUCIBLE CO., - JERSEY CITY, N. J.

What's In A Name?

Nothing! unless it's synonymous with SUCCESS in a particular line.

We are the original inventors of IMPROVED AUTOMATIC WEIGHING MACHINERY, with an experience of fifteen years; THEREFORE the name "RICHARDSON" is pre-eminent in AUTOMATIC WEIGHING.



The "RICHARDSON" ELEVATOR and MILL SCALES

If you buy the "BEST" scale your competitor cannot get a better one.

DO IT! IT'S GOOD BUSINESS FOR YOU.

RICHARDSON SCALE CO.

14-20 Park Row

New York, N. Y.

ELWOOD'S GRAIN TABLES

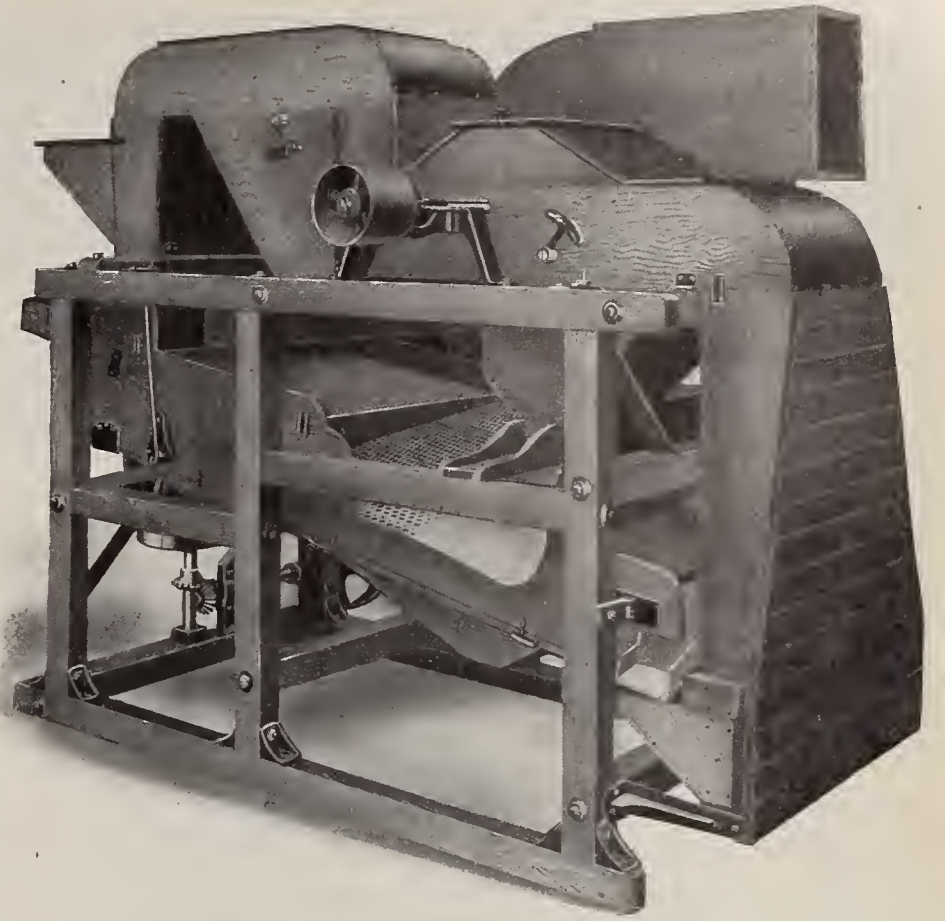
Show the value of any number of bushels or pounds of **WHEAT, RYE, OATS, CORN OR BARLEY** at any given price from 10 cents to \$2.00 per bushel. One of the most useful books ever offered to millers. Indorsed by prominent millers and grain dealers. Bound in cloth, 200 pages. Mailed on receipt of price.

\$1.25

MITCHELL BROS. CO., 315 Dearborn Street, Chicago, Ill.

The
**BEALL ROTATING
 CORN CLEANER**

for handling cobs from
 sheller, shelled corn, oats.



D. S. SHELLABARGER, President
 W. L. SHELLABARGER, Secretary

Shellabarger Elevator Co.,

Receivers and Shippers of

Grain

ELEVATORS AT

Cerro Gordo	Oreana
Emery	Cisco
Argenta	Beason
Forsyth	Gibson
Maroa	Harpster
Coles	Ospur
Rowell	

Use Robinson Code
 Long Distance Phone 173
 Macon County Phone 91

Decatur, Illinois. Feb. 16, 1906.

The Beall Improvement Company,
 Decatur, Ill.

Gentlemen,-

Referring to the #4 Rotating Corn Cleaner which we secured of you and recently installed in our Cerro Gordo Elevator, we are pleased to state that after running this machine for possibly thirty days, it demonstrates beyond a doubt that it is the best country ~~and~~ elevator cleaner on the market.

In handling corn from a #2 1/2 Western Sheller, we gave the sheller all the feed it could stand and the machine took care of it nicely and in fact could have handled more. There was absolutely no grain carried over the tail end and into the cob spout and the corn was well cleaned. In handling shelled corn and oats, the results are equally as satisfactory, in fact it is a first-class, all around country elevator cleaner and we are now figuring on installing another one in our Argenta house which is evidence of our faith in the machine.

Yours truly,

SHELLABARGER ELEVATOR COMPANY,

W. L. Shellabarger

Secy.

THIS IS THE CLEANER YOU HAVE BEEN WAITING FOR

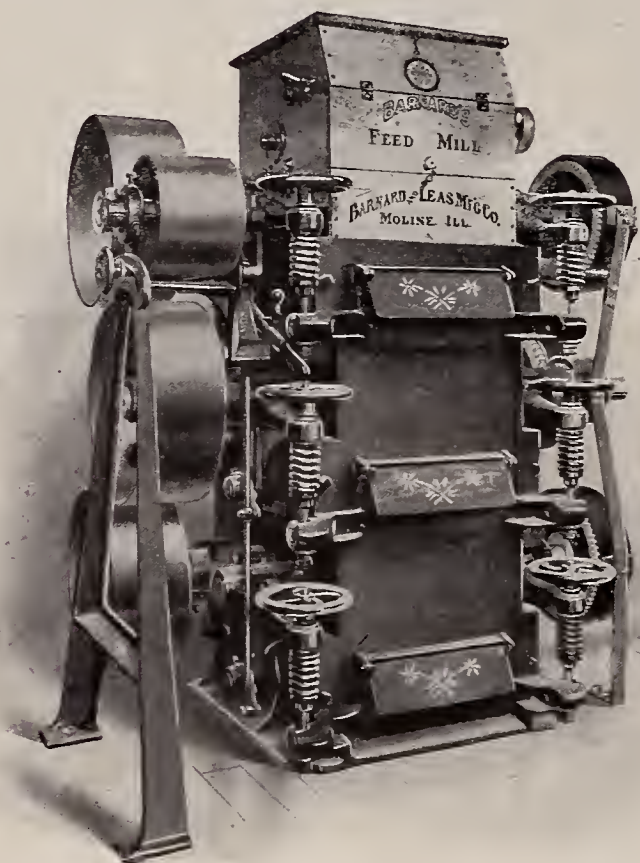
Write for description and price

The Beall Improvements Co.

Decatur, Illinois

Barnard & Leas Mfg. Co.

Three-Pair-High Feed Mill



Barnard's Three-Pair-High Feed Mill has no equal for grinding all kinds of feed, as well as fine meal for table use.

It will grind as fine or as coarse as desired. It is designed to make three grindings, but if, at any time, two reductions only are desired, either pair of rolls can be thrown apart far enough to allow the material to pass through without being reduced. We also make the Willford Light-Running Three-Roller Mill and Barnard's One- and Two-Pair-High Mills.

We make or furnish anything needed in flour mills and elevators.

SEND FOR CATALOGUE

MOLINE



ILLINOIS

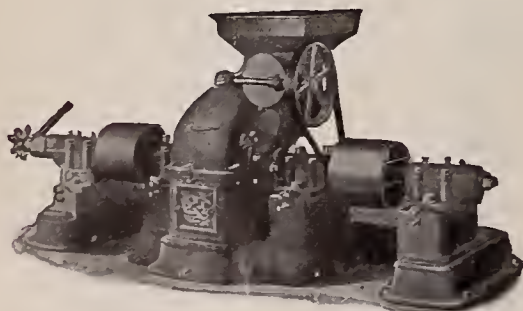
The Unique Attrition Mill

FULL MEASURE IS THE TRADE MARK OF THE UNIQUE

Full measure as to capacity for size of mill, quality of work and beauty of design and finish.

The full measure of satisfaction which users derive from it is a certain guarantee of its perfection in every detail.

The feed grinding season is again here and if you want a machine adapted to your needs and one as near perfect as human ingenuity can make it, order the Unique.

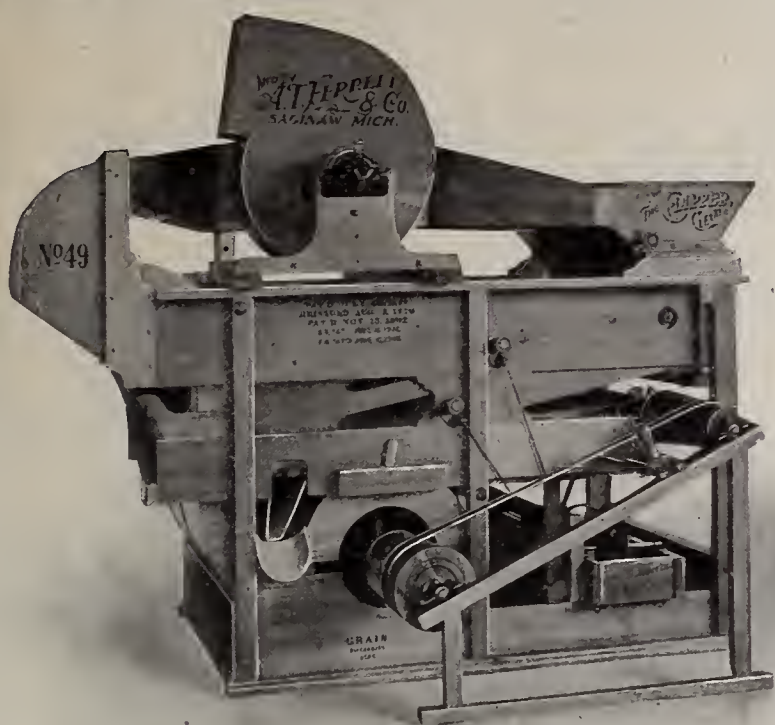


Further Particulars on Application

Robinson Manufacturing Co.

LOCK BOX K.

MUNCY, PA.

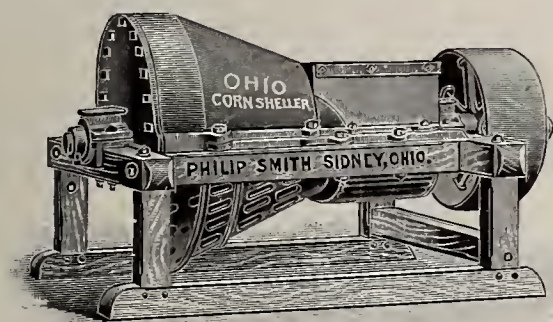


RESULTS

"CLIPPER" CLEANERS BRING RESULTS and as a proof of that fact they are in daily use by over 90 per cent of the seed firms in the United States. If you are engaged in cleaning grain, seeds, beans, peas, corn, rice or coffee, you cannot afford to be without the "CLIPPER" CLEANER if cost of power and fine work are an object.

It has stood the test of time, is simple in operation, has good capacity, does its work perfectly, is medium in price and is the only successful combination cleaner on the market. All "CLIPPER" machinery is sold upon a solid guarantee of satisfaction. You need a "CLIPPER." Now quit thinking about it, investigate, send for catalogue and let us quote you prices.

A. T. FERRELL & CO. :: Saginaw, Mich.



Corn Shellers

Corn Cleaners

Drags, Dumps, Etc.

When you want any machinery or supplies for your elevator, write us for prices :: :: ::

THE PHILIP SMITH CO.
SIDNEY, OHIO

THE WEST LEADS IN EVERYTHING

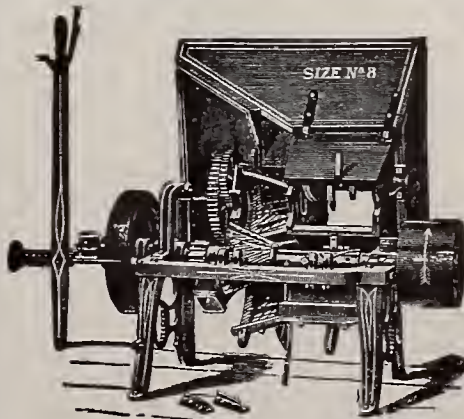
Western people are continually working to make things "just a little bit better." They hustle day in and day out, keeping their business methods strictly up to date. That's why they keep ahead.

For more than thirty years it has been our policy to build and equip grain elevators, "a whole lot better" than the other fellow, and we have done it. That's why we have so many satisfied patrons. Are you one? If not, get in line to-day by sending us your specifications.

GREAT WESTERN MFG. CO.
LEAVENWORTH, KANSAS

Bowsher's All-Around Feed Mill

(Sold with or without sacking elevator)



It CRUSHES ear corn (with or without shucks) and GRINDS all kinds small grain and KAFFIR IN THE HEAD. Has CONICAL shaped GRINDERS, DIFFERENT FROM ALL OTHERS. RUNS LIGHT. Can run EMPTY WITHOUT INJURY. Ahead of rolls or stones in speed and quality of work.

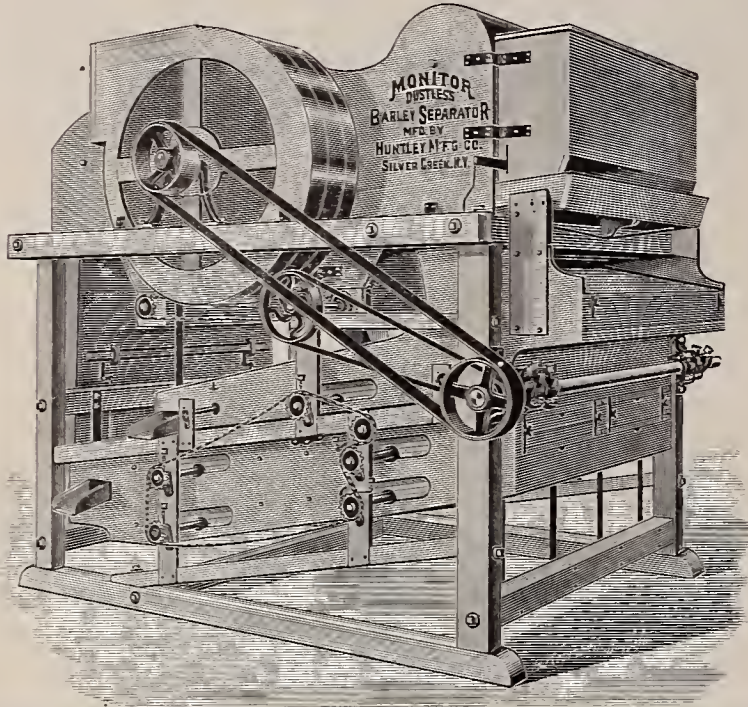
YOU NEED a mill now. QUIT THINKING about it. COMMENCE to investigate. Give US a chance and we'll tell you WHY we think ours is the best.

SEVEN SIZES: 2 to 25 H. P.

Circular sent for the asking.

Drive pulley overhung. Belt to it from any direction. Makes complete independent outfit.

THE N. P. BOWSHER CO., South Bend, Ind.

Monitor Dustless Barley Separator—Style A—3 Sieves Deep

This Barley Separator

is used by the largest handlers of barley in Dakota, Minnesota and Wisconsin

If you handle Barley in any appreciable quantity you should use this Separator

This Separator is specially designed to clean dirty barley as it comes from the threshing machine, and takes out all broken barley, rose buds, corn, peas, Canada thistles, wild buckwheat, wild mustard, straw joints, weeds of all kinds, and leaves the barley in fine shape for use or sale.

This Separator will clean the barley better in one operation than can be done on any other machine on the market in two or three cleanings.

To Accomplish this result the separator is built with four screens, equipped with automatic sieve cleaners, which clean the screens with regularity, each screen making a perfect separation in itself. The shaker is divided, forming a most perfect counterbalance, making it work steady without vibration.

Each Machine has two fans so arranged that the currents of air work evenly through the barley, raising the oats and lighter material and depositing them in the settling chambers and blowing the chaff out of the air trunks.

This Barley Separator is Built in Seven Sizes with capacities in the smallest size of 150 to 300 bushels, and in the largest 600 to 1,200 bushels per hour.

Descriptive folder of this machine, or our complete catalogue of the entire line of Monitor Cleaning Machines for Elevator and Warehouse use, will be sent to interested parties.

HUNTLEY MFG. CO., Silver Creek, N. Y., U. S. A.

BRANCH OFFICES:

302 Traders Building, Chicago, Ill., F. M. Smith, Agent

316-318 4th Ave., South, Minneapolis, Minn., A. F. Shuler, Agent

121 Front St., New York, N. Y., J. W. Perrine, Agent

Hotel Savoy, Kansas City, Mo., H. C. Draver, Southwestern Agent

Berger, Carter Co., Pacific Coast Agents, 34 & 40 Beale St., San Francisco, Cal.



A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY
(INCORPORATED).

VOL. XXIV.

CHICAGO, ILLINOIS, MARCH 15, 1906.

No. 9. { ONE DOLLAR PER ANNUM,
SINGLE COPY, TEN CENTS.

NEW CROWELL ELEVATOR AT OMAHA.

The Crowell Lumber and Grain Company of Blair, Neb., who are among the oldest and best known of the grain merchants west of the Missouri River, have just completed at Omaha a transfer and cleaning elevator of 125,000 bushels' capacity.

This elevator has been the subject of much interest among the elevator and grain men of Omaha and vicinity, inasmuch as Mr. C. C. Crowell Jr., who personally superintended the construction, early announced his intention of building the "best elevator in the United States." The elevator has been in operation for about two months and the small cost of operation compared with the large volume of business handled during this time has fairly justified Mr. Crowell's expectations.

The foundation for the elevator is of concrete resting on piling driven to bed-rock. The basement is 12 feet high, with large windows on all sides. The first story is 25 feet high, of heavy timber construction. The bin story is cribbed in the usual manner and divided into 36 bins varying in capacity from 1,500 to 4,000 bushels each. Above the bin story is a cupola four stories high, the first story of the cupola containing the distributing spouts from scales, the second story the scale hoppers, above them the garner, and the top story containing the elevator heads and machinery. The total height of the building is 175 feet.

The elevator contains a comparatively small amount of grain handling and cleaning machinery, the idea of the

builders being to reduce the number of elevator legs and machines, and men required to operate them, to a minimum and keep them all working all of the time. There is one receiving leg with a receiving pit of about 1,000 bushels' capacity. The elevator leg is equipped with 16x8-inch "V"-

shaped buckets and handles about 7,000 bushels per hour. There is one elevator leg of the same capacity used for the cleaning machines and shipping, also a small screenings elevator. The elevator legs are equipped with Hall Non-Chokable Boots, all of the grain being spouted into the front, or up, side of the leg, thus preventing chokes. Each elevator leg discharges into a garner in the cupola, having a capacity of 2,000 bushels, and each garner in turn discharges into a scale hopper of 2,000 bushels' capacity, provided with Neale Indicators and supported on 108,000-pound Fairbanks Yoke-pattern Hopper Scales. The distributing spouts below the scale hoppers are of the Universal pattern, built in three sections; each spout reaches to every bin in the elevator, and the spouts are of sufficient capacity to carry 500 bushels of grain per minute from the scale hoppers to bins or to cars.

There are two car-loading spouts equipped with Sandmeyer Car Loaders with cast iron linings. These car spouts will load the largest size cars in four minutes without any shoveling. All of the spouting was furnished by J. J. Gerber of Minneapolis, who supplied the V-shaped elevator buckets also.

The elevator is equipped with a double cable car puller.

The grain cleaning machinery consists of a No. 10 Monitor Clipper with by-pass spout and No. 9 Monitor Receiving Separator. About two-thirds of the bins in the elevator are equipped with permanent spouts running to two mixing hoppers, these mixing hoppers in turn discharging into either the receiving or



THE CROWELL ELEVATOR AT OMAHA, NEB.
Built by the Barnett & Record Company, Minneapolis, Engineers and Contractors.

shipping leg. The remaining bins are spouted to the cleaning machines.

All of the machines and elevator legs throughout the building are equipped with electric motors furnished by the General Electric Co. These are of the alternating-current type, 220 volts. Each machine and leg has an independent motor di-

[For the "American Elevator and Grain Trade."]

SELF-INSPECTION OF GRAIN ELEVATORS.

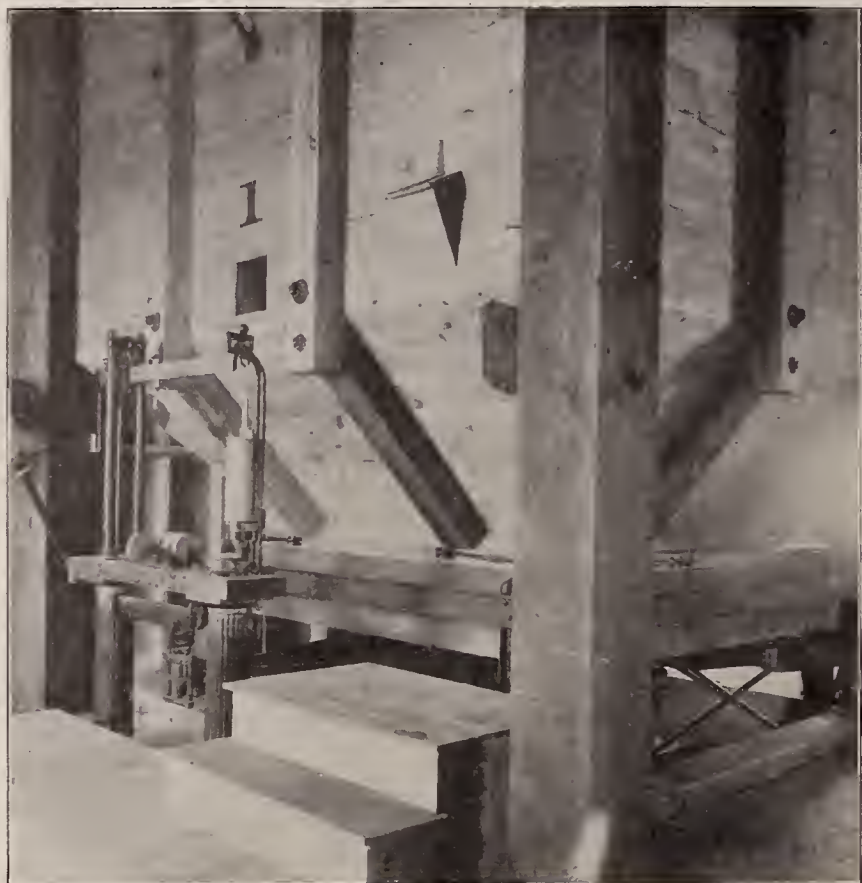
BY L. R. D.

Losses of property by fire in the United States and Canada amount to over one hundred and

One class of insurance companies will reduce the cost of insurance and also, if a fire is prevented, the extra loss above the amount which he is insured will be saved. In another class of insurance companies the property owner has no incentive to be extra cautious with reference to the first of the above-mentioned results, to wit, his premium. His insurance rate is made arbitrarily and with reference to the losses in the past upon all kinds of elevators in all kinds of condition. If all the elevator owners in the country took special care of their buildings, machinery and grounds, which were involved in one-half the fires that have occurred in the elevator business, one can be assured that the rates asked and demanded by the insurance men would stay the same, even after a series of years of such experience: providing, there were no outside circumstances that would have a bearing, such as competition, for example. Only in mutual companies that specialize is the first result of any system that will reduce the hazard and thereby losses, as applied to elevators or any other class of property, reflected in the lower insurance cost. Hence, all must be interested in the double advantage which is offered.

In stock companies the increased profits which are due to the reduction in losses go into the pockets of the stockholders of the companies. If any reductions in rates are made, all other classes will benefit by this extra care of grain elevators; or, most likely, the reductions will go to the preferred classes of business, such as dwellings, public buildings and brick stores. Competition among companies has already forced rates on this class of business far below elevator rates, the hazard considered.

While everyone should take an interest in the care of his property to lessen the danger of fire, the average grain man cannot see, or does not realize, the hazard arising from the small but important points. I mention some of them: The accumulation of dust, cobs and shucks; faulty head construction; pulleys and belts out of line;



108,000-LB. FAIRBANKS YOKE-PATTERN SCALE IN CROWELL ELEVATOR.

rectly connected by gears, excepting the two cleaning machines, which are connected by leather belts. The passenger elevator in the stairway tower runs from the basement to the top floor and is equipped with a Westinghouse Type "F" Motor. A fireproofed room on the first floor contains the marble switchboards with electric instruments. There are two switchboards, one for the electric power and the other for the lighting service. All of the starting compensators for the electric motors are erected on iron brackets on the first floor of elevator. In order to make it practicable to start the elevator legs from the first floor the legs have been equipped with Soule Alarm Machines, which indicate when the motor is started and has attained full speed. The elevator leg motors on the top floor are equipped with a new device called the "Non-reversing Friction Stop" (patented) which automatically clutches the motor and prevents the motor or leg from running backward in case the power is for any reason cut off while the leg is loaded.

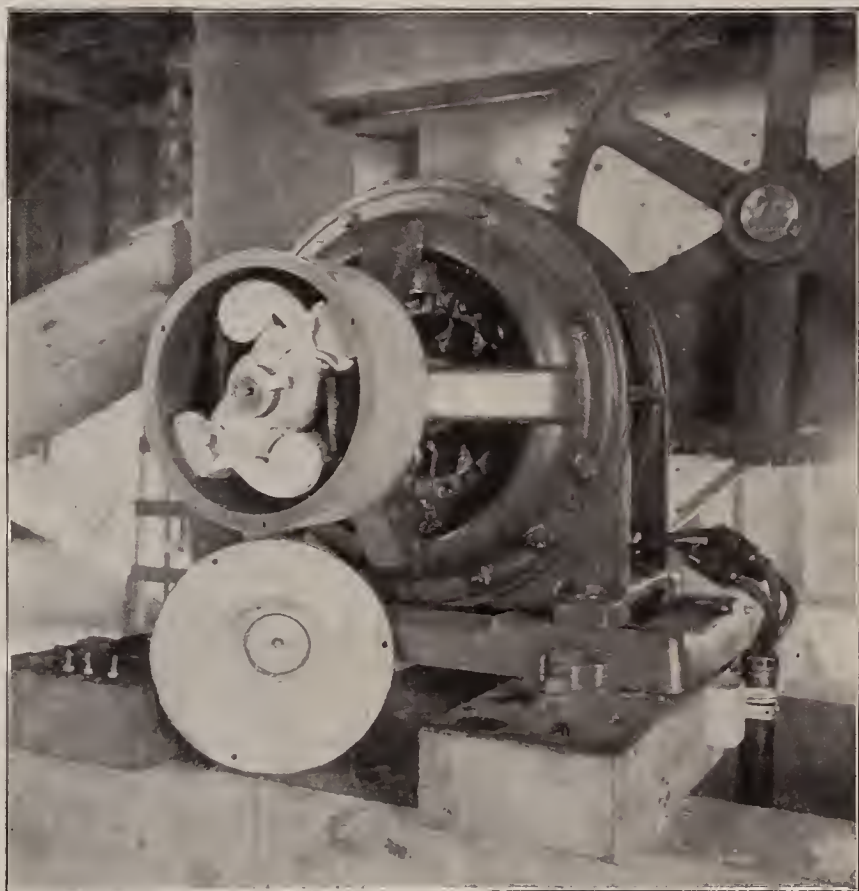
A complete system of mechanical and electrical signals and telephones has been installed, also a standpipe system and other apparatus for fire protection, as well as a dust collecting system installed by H. L. Day, including floor sweepers and connections with all machines. A novel feature in connection with the dust collecting system is the hose sweeper for the elevator leg pits. This consists of a section of 3-inch suction hose with sweeper head, which can be carried into the boot tanks and thrust into all crevices where dust would accumulate, thus enabling the operators to keep the house absolutely clean where fires are most likely to originate.

The elevator was constructed by the Barnett & Record Company of Minneapolis.

The St. Louis Sirup and Preserving Co.'s plant at Granite City has been sold to the Corn Products Company. This refinery covers about fifteen acres and manufactures from 800 to 1,000 barrels of glucose a day, besides using all other parts of the corn in making starch, oil cake and gluten feed for stock.

fifty million dollars a year. Elevators contribute their proportion to this amount.

The loss to owners of property, including elevator owners, is not represented only by the actual



AUTOMATIC NON-REVERSING FRICTION STOP IN CROWELL ELEVATOR.

figures compiled by the insurance companies at what they pay to policyholders. Seldom does a man carry insurance to over 80 per cent of his value; many times it is a great deal less. The loss incident to the breaking up of the business is often as much as what is received from the insurance company. Hence, any plan or system which can be followed that will tend to reduce the fire waste will be of double value to the grain men, if they follow it closely.

wood pulleys in elevators; external cleanliness; the care and condition of stoves and chimneys; location and storage of gasoline, and many others. If a policyholder acts upon all these matters, and pays close attention to many things ordinarily overlooked, he feels that he should have some recognition of the fact in his rate over the man who lets things run haphazard, with no thought of insurance requirements. And he is right, in a way.

These requirements of insurance companies are based upon the statistics accumulated by them during long periods of time. These show the causes of fires in each class of business. Will anyone deny that the company can give valuable advice relative to overcoming the possibility of fire or that the demands which they make and the standard of requirements which they live up to are anything but beneficial to property owners who are fortunate enough to have a policy in the companies whose standards are high? The records show that a certain per cent of loss is due to faulty construction of buildings; another per cent to exposures; another to defective flues; another to hot boxes, explosions of gasoline, matches, spontaneous combustion, kerosene oil, overheated stoves, lightning and a hundred others. All these put together make up the list of causes for each year. Any one of these might be the cause of a fire in an elevator.

Now it is possible to overcome a large share of these causes if thought and action are given to the matter in time to prevent the trouble, and if this attention is repeated at frequent stated intervals. That is the basis of the self-inspection plan to be explained later.

There is only one class of insurance companies that recognize in a substantial way special care and attention to the elimination of the hazards above referred to. That is the mutual insurance companies, which confine their business to one special class of risks. They make a study of the hazards in their respective fields of action. They apply the knowledge derived from the records kept for a series of years, and give the assured the benefit, if he will co-operate with them. Your interest as a policyholder is their interest, and their interest is yours. Any condition which you change and so lessen the fire loss results in benefits to all policyholders, and what others do benefits you; so that policyholders must all work together in harmony—always be willing to learn and to improve conditions, and to exercise continued care and thoughtfulness of danger of fire in order to accomplish the greatest good.

The one company in particular that is working along these lines, and which, while yet young, stands out preeminently in the West as exemplifying the true mutual principle in fire insurance, is the Grain Dealers' National. The factory mutuals in New England, the pioneers in that part of the country, for years have worked to improve the physical condition of their risks and to reduce the probability of fire loss; and what has been their success? Probably every factory built in their field, or old one rebuilt, is constructed according to their specifications. Their insurance cost has been only a fraction of one per cent. They look to what you would call the over-technical and insignificant points. Similar results can certainly be attained in elevator insurance; for if it can be done in one line and in one part of the country it can in others.

The Grain Dealers' National Mutual Fire Insurance Company asks the co-operation of all grain men to raise the standard of condition in all elevators. It is an accepted fact, with a few exceptions, that no class of property has been so poorly cared for, and so little thought given by its owners to the fire hazard, as has been the case with elevators. Neglect seems to have been the watchword.

The company named has therefore put in force a system of "self-inspection" which calls for reports covering general conditions once a month, for which a reduction in cost of insurance is made if the reports are satisfactory. The responsibility of making reports can be placed with the man in charge of the plant and a check kept on his care and caution.

If persistently followed, it will become a habit of great value to the owner as well as to the company.

This plan calls for action on the small matters before they get to the point where there

is danger of a fire. It makes an inspector out of every man who makes a report. He is continually on a round of inspection. He gets into the habit of careful watchfulness and is therefore a much more valuable man. Everyone knows from his own experience with trained insurance inspectors that these men often merely call attention to things out of order on the premises that the grain man knew as well as the inspector; but in going around the plant many times a day the latter becomes quite blind to these matters or says to himself that he will attend to them "right away." But that time does not come until the insurance man drops in and "jacks him up good and hard."

These conditions are overcome by self-inspection reports. You cannot put off inspection very long when you are required to have things right for a monthly report. The pride also of the man in charge is quickened, that he may be looked upon by the insurance company as a good, care-

pense charge added, as against the other plan of paying a rate made on a schedule compiled by guesswork and insufficient data. No board insurance man can claim that elevator owners, or any other class of property owners, have a square deal in such a system of taxation. For insurance is only a tax collected from all and distributed by the collectors where losses occur.

It cannot seem possible that any man looking to his own interests should willingly pay this tax to be distributed among stockholders when he can virtually participate as a stockholder merely by becoming a policyholder. His dividends come in the reduced tax necessary to pay a mutual company's losses. If the stock companies have reduced their schedules, or rates, you may be certain that it has been due to the mutual competition.

Certainly the mutual class of insurance must be maintained. It deserves your patronage for what it has accomplished, and even more for



VIEW OF FIRST FLOOR OF THE CROWELL ELEVATOR, OMAHA, NEB.

ful elevator man and that the company's inspector will find the plant in first-class condition.

The mutual policyholders must realize that they make their own cost of insurance collectively, and therefore individually also. The amount of money collected is for losses only. All will receive, therefore, direct returns from their efforts to reduce the fire waste on their own property. The mutual plan unites a large number of owners of good property, all of whom are willing and anxious to protect themselves from fire in every possible way. The above company is bending all its energies to put all elevators that it insures on an equal basis—the kind of power considered—and this basis is that all be on a par with the very best plant. Can there be any question as to the service of such a company to the grain men or of the financial results attained?

Only to-day we read a statement of the president of a prominent stock insurance company appealing to all the companies to unite their figures of insurance cost to form a basis for rate making. He said: "Rates have been made from guesswork and insufficient data, causing differing charges for the same risk to be made in different localities and rendering all schedules illogical and unexplainable." Certainly a frank statement of the truth. What kind of treatment can be expected from such companies, which admit that they get all the rates that they possibly can, in comparison with that received from companies on the mutual plan? With the latter your cost is only the actual fire losses, with a small ex-

what it will do in the future by further reductions in cost and in the assistance it gives you in improving your plant and freeing it from danger of fire.

NEW SOUTHWESTERN ASSOCIATION.

A new Southwestern association of grain men was discussed at the Midland Hotel, Kansas City, on February 20, the gentlemen interested representing counties in Kansas not organized as part of the Kansas state association and of Missouri not included in the territory of the Grain Dealers' Union. Bates, Cass and Johnson counties, Mo., and Johnson and Miami counties, Kan., were represented by the following dealers: From Missouri—Barron Bros., Amsterdam; H. Reed, Drexel; G. Reed, Amoret; W. W. Cannon, Butler; I. H. Budd, Butler; from Kansas—R. E. Cox, president of a local organization of three counties; W. W. Cubbison, Baird, secretary of the same local; R. F. Butler, Atchison; Alfred Blaker, Pleasanton; W. H. Gluke, Gardiner; Kuhlman Bros., Bonita. On the suggestion of Secretary Smiley of the Kansas Association, the dealers will affiliate with that association, at least until such time as they become strong enough in numbers to form a separate organization.

One special grievance of those present was that 100-pound dockage at Kansas City, which all denounce heartily.

Send us the grain news from your neighborhood.

[For the "American Elevator and Grain Trade."]
CHARTERING A GRAIN SHIP.

BY FRANK ANDREWS.

It takes from 150 to 300 carloads of grain to load a large ship, if there is no other cargo; so when a vessel is chartered to carry grain alone, the shipper must have a large amount to send. Grain merchants on our Atlantic seaboard have occasionally as much as half a million bushels to ship within a comparatively short time; and it is sometimes desirable to charter an entire vessel instead of sending the grain in smaller lots on regular liners along with miscellaneous freight. The man who wants the charter consults a steamship freight broker, whose business it is to know what ships are available for charter, the capacity of each, where they are, and how soon they can be brought to a certain port. The shipper tells the size of the vessel he desires, the date of his intended shipment and its destination, either exactly or approximately. The price agreed upon for the vessel is influenced to a large degree by the number of idle vessels and the quantity of freight to be carried. A scarcity of vessels or a large quantity of a certain kind of freight destined for the same ports, or both these conditions, tend to increase the cost of chartering ocean-vessels.

Large wheat crops on our Pacific Coast, in the Mississippi Valley, in Argentina and in Russia would call numbers of "tramp" vessels to our Atlantic ports north of Cape Hatteras, the Gulf Coast west of Pensacola, and the great ports on the Pacific; while strong inducements might also be offered for these ships to carry grain from the River Plate and the Black Sea. In the face of such a demand, the cost of a chartered vessel would tend to be very high.

A "tramp" ship is one without a regular course. On one voyage the "tramp" may carry cotton from Galveston to Bremen; the next charter may require a load of Russian wheat to be taken from Odessa to Liverpool; and months later the same ship may be crossing the Pacific with a load of Manila fiber consigned from the Philippine Islands to San Francisco. The "tramp" itself is often a magnificent craft, built to carry a large cargo at a relatively low cost; and the only justification for the uncomplimentary name applied to it is the fact that the vessel wanders throughout the commercial world, instead of plying continuously back and forth over the same route. During the past few years the grain exported from our Atlantic ports has been carried by steamers belonging to regular lines, but the large crops just harvested have called to our Eastern coast numbers of "tramps" to lend a hand in moving the surplus food products across the ocean.

The cost of chartering one of these ships and the size of its cargo may be judged by the following terms of a contract made September 1, 1905, by which a ship was chartered to carry 240,000 bushels of grain from Baltimore to some port in Europe. If the port selected by the shipper should be Avonmouth, London, Antwerp or Rotterdam, the cost of the charter was to be about \$9,900; but if the destination should be Hamburg or Bremerhaven, there was to be an additional charge of \$900. Another charter, made about six weeks later, provided for carrying 280,000 bushels of oats from Baltimore to London, at a cost of \$15,000.

Two of the principal types of ocean charters are sometimes known respectively as the "Cork for orders" and the "Berth terms" "party" forms. The written contract for hiring an ocean vessel is called a "party." The "Cork for orders" party is the older form; and its present wording, at some of our ports, omits altogether the name of the old port of Cork, to which laden vessels from different parts of the world used to be sent, there to receive orders as to the ports where their cargoes were to be delivered. The characteristic features of the present "Cork for orders" party are, first, the comparatively long time allowed for loading and unloading the larger ships; and, second, the fact that the party remains in force until the cargo

is delivered at its destination. The "Berth terms" party allows practically no more time for loading and unloading a vessel than is allowed by a regular liner; and when the ship is ready to sail, the charter party is exchanged for a regular ocean bill of lading.

E. E. RICE.

The country grain dealer often gets his first impression of a grain firm at the terminal market through its traveling representative. This is the reason, perhaps, that the average visitor among the shippers of Illinois and the West is a well-bred man, with a broad knowledge of men and events, not only pertaining to the grain trade, but to diversified subjects and questions to which the grain trade is more or less closely allied, or by which it is influenced. These grain travelers, as a rule, fall short in only one par-



E. E. RICE, CHICAGO.

ticular. They can tell mathematically and correctly which house is the best one to ship to—their own. They are informed, also, on the trend of the market, and with given conditions they are able to tell whether the market should go up or down. And they fall short only on the question. What will it actually do? Yet this is not their fault; for if there is one thing Providence may not know, it is what will become of the market after the speculators get their racquets in operation upon it.

The illustration shows E. E. Rice, who travels for the well-known firm of Van Ness Brothers of Chicago. Mr. Rice was born on a farm near Dayton, Ohio, on June 17, 1866, and worked on the farm, attending school at intervals until twenty years of age. He removed to Chicago in 1888, and started in the grain business, which he has followed continuously since that time. He has bought and sold grain on 'change and has traveled extensively throughout Indiana, Illinois and Iowa, in which states he now represents his present firm. He has been with Van Ness Brothers since December, 1904, and is steadily adding to his own list of friends and the firm's line of patrons.

The feed dealers of Milwaukee have formed the Milwaukee Feed Shippers' Association, with the following officers: Charles R. Lull, president; Charles Chapin, vice-president; Otto Siekert, secretary and M. C. Moore, corresponding secretary.

Bidders at Portland, Ore., on government stores to go to the Philippines are heavily handicapped by the fact that Portland has no American line of steamers to the Orient, a recently-enacted law requiring that all shipments of government freight should be made in American vessels, those of the Boston Towboat Company, to wit, sailing out from the Sound ports.

[For the "American Elevator and Grain Trade."]
**COMMERCIAL EXCHANGES—A
 HINT TO SHIPPERS.**

BY L. C. BREED.

It is a well-known axiom that, in the business world, nothing is stationary; an enterprise is either gaining or losing ground. It is equally true that, in any public organization, there is a maximum of inertia—the many allow the burden to rest on the shoulders of the few. At the same time, a few determined, enterprising, broad-gauged men can accomplish much and are bound to receive the co-operation of their associates, if they adopt the right measures to this end, and are persistent in carrying them out.

The subject of the public exchange is a large one. The fact of the exchanges' existence as a part of the business machinery of this and foreign countries, for so long a period, and of the constant, steady increase in the number and membership (and value of the same) of such institutions, demonstrate both their need and utility; but they should and might in some cases wield more influence than they do in their respective communities.

Independently of promoting the welfare of the general public in practical business matters, there might be secured a greater mutual benefit to members through right methods being maintained where they exist, fostered where they are declining, and introduced where they have not been adopted. Briefly stated, among these advantages, the most important is the custom of trading on said exchanges, which in general is losing ground. Referring more especially to exchanges where the active business is the sale of grain, flour, feed, produce, etc., with the exception of grain the practice of selling by sample on the floor is distinctly on the decline.

In the important matter of saving of time, this is to be regretted; for it goes without saying that it is possible to come in contact for trading purposes with far more merchants, both sellers and buyers, in a given time on an exchange floor, than are reached by either class in calling at offices. The custom of trading on exchanges is much more in vogue abroad than in this country. At London, the crowd is often so dense as to render it difficult to move about rapidly and comfortably. On the exchange at Hamburg, the entire apartment is provided with booths ranged along the walls, which are used during business hours by various merchants as offices and for the display of samples.

There is some difference of opinion as to the desirability of large membership which is secured by moderate cost of certificates and of annual dues. At Kansas City, for instance, the membership is limited to 200, and the certificates are worth nearly \$3,000 each; while at St. Louis, the membership is nearly 1,800, and certificates can be purchased, on transfer, at about \$200 each. It is likely, however, that a medium course between these two extremes would be, all things considered, the wiser.

The standard of honor among members of exchanges is, as a rule, deservedly high. On the New York Stock Exchange, for example, immense values in the shape of stocks change hands without receipts being taken. It is one of the desirable results of the influence of such associations, that expulsion for uncommercial conduct is regarded as a serious calamity and does not often happen, for due care is always exercised in admitting parties to membership.

The principle of arbitration is encouraged, in lieu of lawsuits, for the settlement of claims, and it is even made obligatory on the members in case of the Boston Chamber of Commerce; and nearly all such bodies are provided with a committee of arbitration.

The adoption of rules by exchanges governing trading, inspection, weighing, regulation of public elevators, etc., thus establishing standards, renders the conduct of business safer and more

orderly and reflects the experience of the oldest and best men of other organizations which furnished the basis for them.

Not the least of the advantages of such associations is the promotion of friendly relations and good-fellowship, which brings about many kind acts toward such members as may suffer from misfortune or illness, and sympathy with the families of deceased members is always extended.

The influence of commercial bodies with railroad companies to secure equitable rates and the abolishment of onerous conditions is far greater than could be exercised by individual members.

The gathering and posting of market news and statistics is a very heavy expense and so only possible through its burden being shared by a large membership. In case of visitors to a city, it is the place of all places which a merchant is bound to find, not only from general interest, but because he wishes to learn the market news.

Though service as officers, directors and members of various committees is somewhat of a tax, as to time required, it is usually a valuable experience and aids in developing business qualities on part of those who serve their several exchanges in such capacity and also tends to promote their standing in the community in which they live.

A country shipper should give the preference at least, if, indeed, he should not wholly confine his consignments, to a concern doing a strictly commission business, in any given center. In case of a dull market, with a declining tendency, it is likely, in most cases, at any rate, the commission merchant will work harder to dispose of stock he receives and so avoid a prospective loss for his patron. Again, a merchant in a large distributing center is better able, in the long run, to take one line or the other, in the room of a mixed business. That is, either sell on commission, in which case he has simply to get the full market price, or, on the other hand, if he prefers handling goods on his own account, he is free to buy as cheap as he can and sell as dear as he can. A party doing a strictly commission business has an inducement to offer shippers from this fact, and so will find it to contribute to his success.

FIGHT THE FEEDSTUFFS LAW.

The Philadelphia Commercial Exchange and the Retail Grain Dealers' Association of Philadelphia will contest the constitutionality of the Pennsylvania feedstuffs law, which provides that every bag of concentrated commercial feeding stuffs, which includes among others corn, bran, wheat, rye and buckwheat bran and middlings, manufactured and sold as feeds for live stock and poultry, offered or exposed for sale, shall bear a printed statement giving the number of net pounds of feeding stuff contained therein, also the brand or trademark under which the article is sold, the name and address of the manufacturer or importer, and a statement of the percentages of crude fat and crude protein, both constituents to be determined by the methods adopted by the Association of Official Agricultural Chemists of the United States.

At the instance of the Pennsylvania Department of Agriculture, charged with the execution of this law, several members of the organizations named have been arrested, charged with technical violations of the law, the particular complaint taken for the test case being one against H. P. Mittendorf & Co., in which one affidavit avers that the bag, which was of "Boss Corn and Oats, manufactured by the Great Western Cereal Company of Chicago, Ill.," contained a lesser percentage of fat and protein than the figures indicated on the bag, and that it was not correct. Another affidavit charges the firm with having failed to stamp one of its bags.

The defendants will attack the law on the ground that it is in violation of the United States constitution is restraint of interstate commerce and is arbitrary within the state, inasmuch

as it permits a manufacturer of bran or other foodstuff in Pennsylvania to sell the product to a jobber or retailer without labeling the same, but prevents further disposition.

L. J. LOGAN.

L. J. Logan, secretary of the Philadelphia Commercial Exchange, who, though elected on January 1, 1906, has but recently entered upon the duties of his office, has been trained for the service by over twenty years of connection with the grain trade of Philadelphia in various capacities. Born in Philadelphia in 1860 and educated in her schools, from 1877 to 1883 he was employed by the Philadelphia & Reading Railway Co. as clerk, traveling station agent and in the general freight offices. He then entered the grain trade by taking a position in a Philadelphia grain house as



L. J. LOGAN, PHILADELPHIA.

bookkeeper and salesman, which occupation engaged his time until 1886, when, having learned the details of a business by no means easy of mastery in all its phases in the East, he went into business on his own account, which he conducted until 1905, or until his election as secretary as above.

During these nine or ten years he made a specialty of concentrated feeds, and trading as L. J. Logan & Co., acted as Eastern selling agent for the American Linseed Co., Warner Sugar Refining Co., Pekin Sugar Refining Co., Peoria Grape Sugar Co., Duluth Imperial Mill Co., and so on.

As a member of the Philadelphia Commercial Exchange he was for several years chairman of the important committee on arbitration.

THE UPDIKE PURCHASE.

The Updike Grain Company, which, on January 1, last, increased its capital stock to \$1,000,000, evidently for this purpose, has purchased a string of 75 grain elevators on the Burlington in Nebraska from W. H. Ferguson of Lincoln. The Updike Grain Company is an Omaha company, which hitherto had confined its business mainly to the lines of the Chicago & North-Western Road in Nebraska. The purchase named will give the company 107 stations tributary to the new terminal of the company at Omaha.

With the opening of navigation, Superior and Duluth hope to get considerable tonnage of corn to go to the East from Nebraska, via the new Ashland (Neb.) cut-off, uniting the Burlington and Great Northern systems, with an outlet at head of the lakes.

A DECATUR MEETING.

A meeting and banquet of the Decatur Division of the Illinois Grain Dealers' Association was held at Decatur on the evening of March 2. The principal objects of the meeting were to hear opinions and engage in discussion on how to reduce cost of handling grain at local stations, the relations of the state association to the national organization, and what action should the grain dealers take on the Hepburn Bill.

The banquet was served by the members of the Y. W. C. A., in the rooms of the Association in the Bullard Building. The tables and room were decorated with carnations and festoons of flowers, and an elaborate old-fashioned turkey dinner was served, after which the dealers enjoyed cigars and listened to the speeches.

H. I. Baldwin of Decatur was chairman of the meeting and introduced John A. Montgomery as toastmaster, who, after introductory remarks interspersed with bright stories, announced W. L. Shellabarger, who led in the discussion, "How We Shall Reduce the Cost of Handling Grain at Country Stations."

Mr. Shellabarger said that this was an important question. It is one we all study and we realize that we must handle grain economically to compete with our neighbors. As to what constitutes expense, we must figure in, first, cost of elevator and money invested; second, salary of station agent and his helper; third, shortages, and fourth, general expense of repairs and wear and tear on machines. As to the latter expense the flues in your boiler may leak, cups in your elevator become badly broken, shafting get out of line, thus entailing the expense of repairs. We have a millwright whose duty it is to go about inspecting our elevators, and when we take hold of a new plant we put it in as good condition physically as possible. Scales should be kept in good repair and if you watch all these items carefully it will tend to decrease your expenses of operating the plant.

H. C. Mowry of Forsyth said that formerly he operated an elevator at Mattoon at a cost of 1 cent a bushel, owing to the handling of so much grain at the station. At two other places, the same year, where the amount of grain handled was small, it cost 3 to 4 cents per bushel to operate the elevators. He spoke of the importance of having good men to handle the machinery as a factor in reducing expenses.

C. A. Burks of Decatur brought out the points of handling side lines and watching the details of the business. Each of these factors would tend to decrease cost of handling.

J. F. Courcier, secretary of the Grain Dealers' National Association, was present, and when called upon, among other things said:

The constitution of the National, as it now stands, provides for three classes of membership as follows:

"Class A—Direct members shall be those who are members of the Grain Dealers' National Association, independent of their membership in any other organization.

"Class B—Associate members shall be those engaged in pursuits closely allied to the grain trade, and shall be entitled to all of the privileges of direct members, except those of vote and holding office.

"Class C—Affiliated members shall be those who are members of affiliated associations."

The dues of Class "A" are also divided into classes as follows: Class A—The dues of direct members, who are receivers, track buyers or brokers, \$10 per annum, payable July 1 of each year in advance; Class B, direct members who are country elevator grain shippers, but not receivers, track buyers and brokers, \$3 per annum, payable July 1 of each year in advance. The dues of associate members shall be \$10 per annum, payable July 1 of each year in advance. The dues of affiliated members shall be \$1 per annum and shall be collected semi-annually in advance (January 1 and July 1) by the secretary of the affiliated association, and forwarded to the secretary of the Grain Dealers' National Association. Membership Classes A and C and the annual dues thereof are those in which the majority of you are interested.

Now, as in the past, the receivers, track buyers

and brokers take care of the major portion of the financial end of the Association, and are perfectly willing to continue on the same basis in order that a fellowship may be maintained with those who originate the grain and to pay a greater amount in dues than is required of the country shipper; and inasmuch as the greatest good resulting from association work has passed to the credit of the country shipper, there is no good reason why he should not at least match dollar for dollar with the receivers, track buyers and brokers; and, since our shippers are so vastly in the majority, and the per capita due rate less than one-third, I do not think they will long take a back seat with reference to keeping up their end of it.

In this connection, I would like to ask whether it does not seem ill-fitting at this time to have to say that the dollars of the terminal people should be matched, when the records show the Grain Dealers' National Association primarily to have been an association of shippers, who, from the date of the initial meeting, unceasingly solicited the moral and financial support of the terminal people; and strange as it may seem, just at a time when the income of the Association, in dollars, was supplied about equally by the shipping and receiving interests, something over 2,000 shippers withdrew their support, and thus sowed the seed of disorder and discontent, which later threatened to throttle the Association. After having made a diligent and strenuous effort to effect the reaffiliation of the withdrawn associations, nothing was left for the board of directors to do but to make provision in the constitution and by-laws for a direct country membership in unaffiliated territory at a nominal (dues) rate, in order that those shippers who were disposed to support the National might do so.

When the new plan was announced, it was clearly stated that nothing would be said or done that could possibly be construed as being either antagonistic to the state association or a barrier to reaffiliation, and that policy has been so religiously observed that now that the board of directors of the Illinois Grain Dealers' Association, by a resolution adopted at their meeting in Peoria on the 27th inst., has endorsed the work of the National, and by the same resolution recommended that the members of the Illinois Grain Dealers' Association avail themselves of the opportunity to become direct members of the Grain Dealers' National Association, you are at liberty to join hands with us with perfect assurance that the slate is clean and that the sores of the past have been healed by the past, leaving us with an unclouded future, free to devote our energies to the betterment of conditions, instead of to the adjustment of family quarrels.

Going back to the work of revision, I wish to speak of the Trade Rules as they now stand. In my opinion, the application of the Rules means more to the trade than any other feature of association work; and is a question that cannot possibly be solved except under the management of a national association. Uniform rules of trade simply mean that when we write a telegram in Illinois and it is transmitted by wire to New York, identically the same construction is put upon the words of our telegram there as was placed upon them when they were written; in other words, a copy of the Trade Rules is just as essential as our telegraphic cipher, and should be consulted with just as much care and precision. There is no reason why we should trust to memory in the selection of words for the general context of our initial offers and acceptances, any more than there should be to take the chances of guessing at the code word for the price. A copy of the Trade Rules of the Grain Dealers' National Association will, within a few days, be in the hands of all of the leading grain exchanges for their endorsement, and the fight for uniformity will not cease until the same words and usages shall have the same meaning and effect wherever grain is bought and sold.

Following the question of Trade Rules comes that of arbitration. We say "following" for the reason that were it not for the difference in opinion as to the rules and customs governing certain trades, there would be no occasion for arbitration. However, since the lack of uniformity confronts us, we are compelled to provide means for the adjustment of differences.

It has been generally conceded, beyond question of doubt, that the submission of disputes to a committee of arbitrators representing the various branches of the trade is the most practical method possible to employ for the adjustment of otherwise irreconcilable differences; therefore, all possible pressure should be brought to bear upon association members to consent to arbitration; in fact, members should absolutely refuse to do business with individuals or firms

who decline to arbitrate, not in the sense of coercion, but in a spirit of self-protection. It is fair to assume that if a man were to practice irregular methods and decline to arbitrate a resulting difference with one dealer, he could not be trusted by another; hence the apparent advisability of requiring of him a clear title.

I am pleased to report the Grain Dealers' National Association as having been eminently on the right side of the now pending railway legislation. The average grain dealer is not a lawyer, neither does he pose as a professional interpreter of railroad law; yet those of us who have spent the greater portion of our lives in the grain business are familiar with conditions of the past and present, and know of the many transitions through which the transportation end of the grain trade has gone during the last fifteen or twenty years. We know to what influence is due a majority of the reforms effected thus far. It is an indisputable fact that an overwhelming percentage of the concessions secured have been the result of the efforts of the shipping public. The railroads and their advocates are ever ready to dilate upon the objectionable features of all remedies offered by the public, but they fail to give us the benefit of their experience and technical knowledge of conditions by offering suggestions as to what would be good.

The resolutions forwarded to the fifty-ninth Congress by the Grain Dealers' National Association have asked for the passage of such amendments to existing laws as shall have the effect of increasing the powers of the Interstate Commerce Commission sufficiently to enable it promptly to regulate irregularities, without having to wait an interminable number of years for the carriers to exercise every known privilege of delay incident to court reviews and appeals therefrom. Less than two weeks since, it looked very much as though the Hepburn bill would come out of the Senate committee on interstate commerce with the obnoxious Knox amendment pinned to it, but thanks to a sufficient number of stalwarts, that calamity was averted; and it would now seem as though we were to have a law for the regulation of the railroads which shall be in effect all that the term implies.

On the 20th inst., I sent to every senator in Congress a copy of each of the three resolutions and petitions which previously had been sent to the president of the Senate, the speaker of the House, and the chairman of the various committees having jurisdiction, and among the many acknowledgments was that of Senator LaFollette of Wisconsin. In answer, I thanked him for the personal interest manifested by him. I assured him that by reason of the legacy he recently had left to the people of Wisconsin, along similar lines, we felt doubly certain of his loyalty to the wishes of the great American public.

In addition to the work of reorganization, revision, increasing the membership, conducting correspondence relative to the fourteen cases filed for arbitration, and innumerable other questions, such as are constantly coming up for consideration, we have given some attention to the questions of the uniform bill of lading, uniform contracts, uniform grades, better crop reports, better equipment and reciprocal demurrage, all of which, with many others, are live subjects, and shall be brought to a successful conclusion just as fast as time and funds will permit. In all of this work, your assistance is needed; and now that the board of directors of the Illinois Grain Dealers' Association has approved of the course, let us, every one, join hands and push. Inasmuch as every grain dealer in the state of Illinois, as well as every other surplus-producing grain state, is a beneficiary of the efforts of the 950 to 1,000 shippers and terminal people who are now paying the bills, is it unfair to ask you to lend your names for moral effect, and contribute less than 1 cent per diem to the treasury? If I could take each of you with me to my office and let you handle the business for a week, all doubt, if any exists, as to the need of a National Association would be wiped out instantly; and, take my word for it, not only as secretary, but also as a grain man dyed in the wool, you would willingly pay ten times \$3 per annum rather than to see the Association discontinued.

This is not an idle assertion, but based on fact; our proof being that within a short time after the adjournment of the last annual meeting, forty-eight firms and individuals went down into their pockets and paid into the treasury of the National the sum of \$50 each, with the distinct understanding that refund, less their annual dues, should be contingent entirely upon the ability of the officers so to do. The bulk of the money so subscribed is still on hand, with all bills paid to date; and if you will now do your part and our further efforts during the next three months shall meet with anything like the success which has been the reward of our past

efforts, we shall not have to be ashamed of our financial showing when called to account at the next annual meeting.

As already announced by circular and through the press, the tenth annual meeting of the Grain Dealers' National Association will be held in Chicago on June 4 and 5 next, the headquarters and program along with other details to be given out as fast as determined. The past has proved the annual meetings to have been an important factor in association work, and as your direct membership will entitle you to full voice and vote in the deliberations, I take the liberty of urging you to take such steps at once as will enable you to attend, with a view to ratifying old standards and inaugurating such new policies as may have for their purpose the furtherance of the objects for which we are organized.

The next subject, "What Action Shall the Grain Dealers Take on the Hepburn Bill?" was presented by Gordon Hannah of Chicago. In his address he covered the main points of the bill and spoke of the importance of railroad rate legislation to grain men and shippers. He read a copy of the resolution passed by the Interstate Commerce Law Convention and the Grain Dealers' National Association, and recommended that the substance of the resolution should form the basis for letters addressed by dealers to their respective senators from Illinois, urging them to stand by the bill, which is now before the Senate, and to use their best efforts to secure the passage of the bill without such nullifying amendments as may be offered by its opponents. In conclusion, Mr. Hannah moved that the chair appoint a committee of three to draft a resolution endorsing President Roosevelt and Senators Cullom, Hopkins, Tillman and Dolliver in their support of the bill and to forward copies of the resolution to each senator. The motion carried and the chair appointed as the committee Messrs. Shellabarger, Rodman and Knight.

Chairman H. I. Baldwin read a letter from F. M. Pratt, handing in his resignation as president of the Decatur Division of the state association, which was accepted.

H. N. Knight placed in nomination the name of W. L. Shellabarger for president and he was unanimously elected. A resolution of thanks was tendered to the toastmaster and guests of the evening for their presence, to the ladies of the Y. W. C. A. and all others who had contributed towards making the meeting a success, after which the meeting adjourned.

A list of those present included Wm. Noble, Foosland; M. C. Davenport, Lovington; C. D. Rowland, Coles; N. A. Mansfield, Niantic; Oscar N. East, Cerro Gordo; H. I. Baldwin, J. J. Fitzgerald, C. A. Burks, H. I. Phillips, Geo. A. Conard, M. C. Cooper, H. H. Randolph, R. W. Chapman, F. L. Evans, W. E. Walker, Decatur; H. H. Armstrong, Beason; C. O. Bowdan, Forsyth; J. W. Shasted and Douglas Williams, Oreana; E. W. Jokisch, Boody; E. S. Collins, J. E. Collins, Garrett; Tom Abrams, Tuscola; Chas. H. Faith, J. C. Hamilton, C. J. Tucker, Warrensburg; Geo. L. Hight, Walker; J. C. Hight, Dalton City; W. H. Zimmerman, Harpster; W. J. Compton, Maroa; W. S. Armsworth, Cisco; W. J. Morphey, Clinton; S. W. Strong, Pontiac; M. C. Cooper, H. C. Luckenbin, Argenta; H. Malone, Emery; J. P. Woolford, Galton; H. A. East, Maroa; R. M. Hodam, Downs; T. E. Hamman, Milmine; Martin E. Connard, Elwin; G. A. De Long, Foosland; F. S. Weillepp, Cisco; H. N. Knight, Monticello; H. C. Mowry, Forsyth; M. C. Camp, Bement; Wm. Ritchie, Warrensburg; Gordon Hannah, Henry Stanbery, John E. Bacon, Chicago; J. M. Brafford, W. H. Howard and Burt A. Boyd, Indianapolis, Ind., and John F. Courcier, Toledo, Ohio.

Corn began moving by boat on Illinois River as early as March 1 from towns above Peoria and Pekin to those markets.

On February 17 the largest single option in oats ever recorded at the Minneapolis Chamber of Commerce was made, when the American Cereal Co. bought 50,000 bushels for May delivery.

STEEL CONSTRUCTION WAREHOUSE SEPARATOR.

In the production of a line of steel construction cleaning machinery for warehouse purposes, the Huntley Manufacturing Company of Silver Creek, N. Y., have nothing more perfect to offer than the Monitor Steel Construction Warehouse Separator, shown in the accompanying picture, which may be taken as a model of advanced and progressive improvement on warehouse machinery building. Certainly, in addition to its other claims of merit, the Huntley Company seem to have attained practical indestructibility in the construction of this machine. As the materials used are steel and iron, fire and the elements need have no terrors for its owners and users, and being practically wearproof as well as fireproof it should last almost forever.

Utility has not been sacrificed in the construction, as the material has been distributed with positive in action.

In operation, the machine is fully up to the

nized universally. If the present grade is not high enough, let a committee determine what the grading should be. Personally, I think the present grading is a very fair one; the only trouble is that some dealers try to hew too close to the line in picking their stock, and on a declining market this sort of stock is going to be rejected. We should keep well within the grade and then sell on our grading. There has got to be some standard, and we are in a better position to say what that standard should be than any other body of men.

FREE ALCOHOL IN THE ARTS.

The economic question of the removal of the internal revenue tax of \$2.08 from alcohol used in the arts has during the past thirty days unexpectedly assumed a prominent place among the legislative problems now before Congress; for when the bill was introduced to remove the tax on ethyl alcohol of domestic production which shall have been denaturized and to provide a

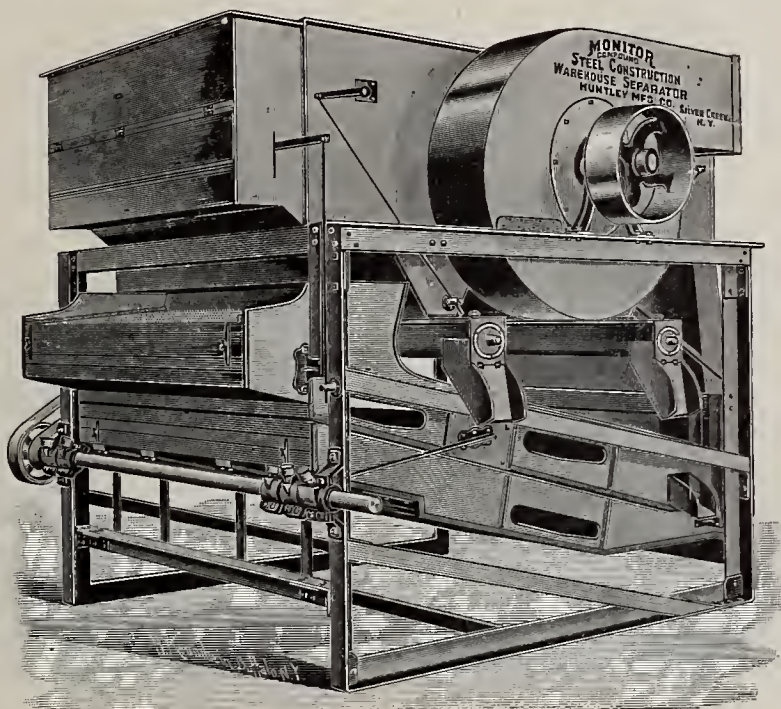
from potatoes, molasses, cornstalks, etc., and told the committee that all civilized countries now exempt from internal tax all ethyl alcohol rendered undrinkable.

E. A. Manier, representing the Chardonnet Silk Works of France, told the committee that should this legislation be enacted, his firm would at once establish an artificial silk plant in this country, employing 1,200 to 1,500 hands, for the manufacture of silk from pure cotton by a patented process. He exhibited samples of both artificial silk yarns and handsome piece goods, which he declared were manufactured from pure cotton with the use of undrinkable alcohol. In France such alcohol now costs about 40 cents per gallon, making the cost of this silk \$2.50 per pound, whereas with undrinkable alcohol exempt from internal revenue taxation, this silk could be manufactured here for \$1.25 per pound or less.

The grain producers were represented at the earlier hearings by ex-Gov. Bachelder of New Hampshire, master of the National Grange, and F. S. Ingram of Detroit, Mich., a delegate of the Michigan State Grange and representing 5,000 petitioners, whose number would be increased shortly to 50,000. Mr. Ingram pleaded for free alcohol as a consumer, however, rather than as a grain producer. As a practical farmer he said that while few, if any, farm engines were now manufactured in this country for the use of alcohol as fuel, yet if it became cheap, as it would with the proposed legislation, there would at once spring up a demand for such alcohol engines for farm and other machinery, and the manufacturers would perfect them. He described the advantages of alcohol as a fuel over gasoline: There is far less danger; it is much cleaner and more sanitary; its use does not clog machinery, as does gasoline. Moreover, the farmer could, by means of the co-operative distillery, turn waste products of his farm into a profitable fuel, as he now does his milk into butter and cheese through the co-operative dairy. He could turn his cornstalks into alcohol. Sugar-beet pulp is already turned into alcohol with success by some of the Michigan factories. Such alcohol would cost, without the revenue tax, only ten cents per gallon. Mr. Ingram also corroborated the statements of Mr. Capen, another member of the Detroit Board of Trade, as to the advantages of alcohol for use in farm engines and of the need of finding a cheaper, safer fuel than gasoline.

In short, not to make this review too long, it may be said that the striking features of the testimony were the diverse and (to many persons) new uses to which alcohol could be put. The experiments described by men from the Department of Agriculture and by others, and the testimony of various representatives of different industries, opened up a new field of thought. Especially impressive was the testimony before the committee as to the possibilities of using alcohol for running engines where other fuels are now employed, and the possible result that might thereby be produced on the prices of cereals which now command relatively unsatisfactory returns. A very substantial effect was also created by the information laid before the committee as to the very injurious effects of the use of wood alcohol in certain kinds of manufacturing. This injury was fully attested by statements from many different sources, and not alone by the ocular evidence presented in the persons of injured men who appeared before the committee. It was shown by Charles H. Merritt of the Fur Hat Manufacturers' Association that the results of inquiries sent to many different firms showed practically uniform opinions as to the physiological consequences to workers of using wood instead of grain alcohol.

Per contra, the objections to free grain alcohol came in the main from the manufacturers of wood alcohol, an interest that represents large capital, one company alone, the Ashland Iron & Steel Co. of Ashland, Wis., having a million and



MONITOR STEEL CONSTRUCTION WAREHOUSE SEPARATOR.

an evenness and an exact knowledge of the requirements that render the machine perfectly high standard set by every Monitor machine. The shoe is divided and shaken from two eccentrics, one shoe working opposite from the other, thereby forming a perfect counterbalance, and making the machine work steadily and without vibration. The air and screen separations are perfect.

Taken altogether, the machine is an ideal one, both in construction and operation.

VALUE OF ASSOCIATION.

I would like to see every handler of beans in this state a member of this Association, and it seems to me we could get the rest of them in if we would each do a little missionary work, said E. W. Botsford of Detroit, at the annual meeting of the Michigan Bean Jobbers' Association. Show them the advantage of belonging to such an organization, and they will join if only through a selfish motive. When we have such an organization, then we can go before the business men of this country prepared to tell them that we stand for just and upright dealings, and are in a position to demand a square deal. If every member of this Association would feel that he is an integral part of its organism, and that any injury done to one member affected the whole body, these commercial pirates would learn that they could not apply their tactics to Michigan bean dealers.

Another thing that suggests itself is this: Michigan is now the largest producer of pea beans in the country, and should take the initiative in adopting a standard of grade that would be recog-

punishment by fine and imprisonment for rectifiers of denaturized ethyl alcohol, it was believed to be rather educational in character than within the probabilities of reaching the statute book. The hearings by the ways and means committee, however, opened up the subject matter in a way to force it upon the overburdened attention of Congress, more especially since many organizations of farmers and interested manufacturers have bombarded congressmen with resolutions demanding the passage of the bill.

The hearings in question extended over several days; and in their general trend the arguments in favor of the bill were that the removal of the tax would be of great benefit to many lines of industry. Commissioner of Internal Revenue Yerkes stated that the removal of the tax would result in great benefit to the manufacturers of pianos and other highly polished furniture, brass goods, certain classes of soaps, etc. Questioned as to what effect the passage of such a measure would have upon revenue receipts, Mr. Yerkes said that it was impossible to make any estimate along this line, but Mr. Kline, president of the National Wholesale Druggists' Association, presented statistics obtained from various manufacturers now using taxed grain alcohol, indicating that should this be superseded by untaxed denaturized alcohol, it would call for only 439,920 gallons. He scouted the idea that there would be danger from the redistilling of denaturized alcohol, showing that the expense of producing new alcohol would be much lower than that necessary for the purpose of rendering undrinkable alcohol fit for drinking. He spoke of the ease with which alcohol is now manufactured

a half of dollars invested in plant and timber lands. The spokesman of the wood alcohol interests was H. J. Pierce, president of the Wood Products Co. of Buffalo, who complained because farmers had been led to believe that markets would be provided for their corn, potatoes and other products if the way was opened for free alcohol for manufacturing purposes. He characterized the plan to remove the tax from denatured spirits as "purely selfish" and said it would annihilate or cripple the wood alcohol industry, which represents an investment of many millions of dollars, employs thousands of men and affects the welfare of at least 100,000 persons. He denied also that the destruction of American forests could be traced to wood alcohol manufacturers. He said the proper use of wood alcohol had never to his knowledge resulted in injury to anyone, and he expressed the opinion that wood alcohol was injurious to health only when drunk. Only manufacturers who use naphtha, gasoline, turpentine and linseed oil in large quantities would profit, he said, by the proposed removal of tax, as denatured alcohol could not be used for medical and other purposes to which grain alcohol is adapted.

Another witness in opposition to free grain alcohol was F. Howard Mason, secretary of the Buffalo Chamber of Commerce, a body that sent him to Washington with a set of resolutions against the bill.

[For the "American Elevator and Grain Trade."]

CARRIER'S LIABILITY FOR LOSS CAUSED BY DELAY IN DELIVERY.

BY J. L. ROSENBERGER.

A Member of the Chicago and Cook County Bar.

Two carloads of oats were shipped from a point in Iowa to Kansas City on July 21, 1903. On July 28, the railroad company notified the consignee of the arrival of the cars. After inspection, the consignee was furnished with a sample from each car, and on the same day, July 28, he sold both carloads to a grain company. Shortly after the sale was consummated, both the consignee and the grain company telephoned the railroad agent, notifying him of the sale and instructing him to have the cars switched upon the team track as soon as possible for unloading. This he agreed to do, without objection or question of any kind. But the cars were not placed upon the team track until August 6 and 10, respectively. In the meantime, the market value of the oats had steadily declined and the grain company sued to recover the damages sustained thereby, upon the ground that the defendant railroad company had failed to deliver the oats within a reasonable time. The grain company recovered a judgment, and this is now affirmed by the Kansas City Court of Appeals (Russell Grain Co. vs. Wabash Railroad Co., 89 Southwestern Reporter, 908).

It is the duty of the common carrier, the court says, not only to safely carry property to its destination, but to take it to the place provided at that point for delivery to consignees of property of its kind, and there place it in a position of accessibility. The railroad company insisted that under the facts in evidence it was under no duty to the grain company to take cars from the yards to the team track, for the reason that the grain company had no contract with it. A sale of the oats by the consignee to the grain company, while they were in the yards, carried with it, as an incident, the rights the former had under the contract of affreightment. To say otherwise would be to take a property right from the consignee and give it to the carrier. It was conceded that had the consignee remained the owner of the oats, the railroad company was under duty to place the cars upon the team track at his direction without additional charge. No reason is apparent for releasing the carrier from the performance of this or any other duty under its contract by the

fact of the sale of the property while in transit.

Nor was any merit to be found in the suggestion that the grain company's right to require the railroad company to carry out its contract was affected by failure to prove an assignment of the bill of lading by the consignee to the grain company. The possession of this instrument by the grain company, duly assigned, would have been an evidence of its ownership and right to possession of the property and of its right to be substituted as consignee; but it was not indispensable to the transfer of any or all of the rights mentioned. Such transfer could have been otherwise evidenced. Whatever may have been the right of the railroad company to require the production and surrender of the bill of lading before delivering the oats, it was no longer in a position to base any claim upon such right. From the time of the announcement of the sale it recognized the grain company as the rightful owner of the property and made delivery to it without further proof of the transfer of title than a verbal statement of the vendor and vendee and without asking for the production and sur-

is to be exported, so it may be placed in the proper elevator for delivery.

HILLMER CO., FREEPORT, ILL.

The site occupied by the grain elevator, coal sheds and wood yard of the H. A. Hillmer Co. at Freeport, Ill., has been similarly used for nearly half a century, going back to a time not long subsequent to the opening of the C. & N.W. and I. C. Railroads. This is a long time in business in America, where changes are frequent; but even so only three firms have occupied the premises: Smith & Porter up to 1890; H. J. Porter from 1890 to 1903, when the present company became proprietors.

The elevator is admirably located for business, being reached by sidetracks from the C. & N.W., I. C. and C., M. & St. Paul tracks. It has about 15,000 bushels' capacity in eleven bins and has a gasoline engine for moving its machinery. The amount of grain shipped is about 125 cars annually. The company operate from Freeport several



PREMISES OF H. A. HILLMAN COMPANY AT FREEPORT, ILL.

render of the bill of lading. Under these facts the point was technical, not substantial, and would be disregarded.

The delay, it was shown, was due to a flood which had occurred in June, and it was no more than that endured by every other shipper, and was not unreasonable under the conditions then prevailing. But the court holds that this was no defense, because the cause of the delay had arisen before the oats were received for shipment and no notice had been given the shipper that prompt delivery could not be made.

IOWA RECIPROCAL DEMURRAGE BILL.

The Powers reciprocal demurrage bill before the Iowa legislature has been sent to the committee on agriculture and not to the railroad committee, the usual disposition of bills affecting the railway interests. The bill seems to be most strongly supported by the farmers and the few co-operative grain companies of Iowa at whose urgency the bill was drawn and introduced.

One object of the bill is to force the roads to furnish cars more promptly on demand of grain shippers, and to move them promptly when loaded; and at a recent meeting of the committee of agriculture at Des Moines testimony was offered showing that during the past fall and winter shippers had suffered heavily by reason of the scarcity of cars.

In announcing the opening of the new grain elevator at Mystic Wharf, Boston, the freight department of the Boston & Maine Railroad notifies grain exporters that they should always designate the steamship line by which their grain

other houses in this territory, located on the roads named, and also on the C. G. W. C. L. Snyder is president of the company and H. A. Hillmer secretary-treasurer.

GAS AND GASOLINE ENGINE TROUBLES.

One often hears an engine making an exhaust which sounds like the last coughing of a dying dog. That is, it sounds as though the explosion had been very weak and did not give a strong, sharp quick "bark" which a proper mixture gives. This may be due to wrong fuel adjustment, and while it does no harm to the engine it is the result of an improper mixture of gas or gasoline and air, and therefore means that the consumption of fuel will be high for the amount of power developed. Of course, the muffling of the exhaust has much to do with the sound resulting, but when the exhaust is free and in most cases even where it is muffled, much can be told of whether the engine is working under proper conditions by the noise resulting, writes Albert Stritmatter in the Gas Engine.

The noise or clicks made by the moving parts of an engine are also indicators in many cases, to the ear of the practiced engineer, of whether the engine is in proper adjustment. Pounding in the engine is a thing which indicates, under ordinary conditions, to the operator that there is something out of adjustment. Perhaps the boxes on one or both ends of the connecting rod need taking up. This, of course, should be done properly as soon as it is required. In many cases an engineer will look for a long time trying to locate a knock in an engine cylinder or the rod boxes, and will eventually find that it is due to the key in a flywheel being

loose. The noise from a loose key is often such that it sounds exactly as though it was made within the cylinder and due to a loose piston. Of course, when the piston is too loose and causes a knock, about the only remedy is to fit a new piston to the cylinder. If the looseness is the result of long-continued wear, the cylinder will probably have to be rebored before it can be put into a fit condition to receive a new piston. If the knock is caused by a loose key in the flywheel, the wheel should be tightened at once.

The writer once knew of a case where an engine was reported to be pounding and the parties stated that they could not locate it. It was finally found by an engine expert to be in a loose flywheel. Why the wheel had not come off seemed almost a miracle, for the keyway was literally chewed by the key until it was nearly double its original width. The source of the trouble was located in the igniter, which had been allowed to get out of adjustment and operate too early. This caused the engine to fire against itself, but the momentum of the flywheels carried the engine on, although there was a terrific strain on the flywheel hub and the crankshaft. In fact, it was a wonder that the crankshaft had not broken from the strain put upon it. This particular case was an instance of where an engineer had failed to use his eyes, ears or brains. He, of course, had continual trouble with the engine, and, of course, thought the engine was to blame.

I recently learned of a prospective purchaser of a gas engine who had called at an elevator where a gas engine was in use. He made inquiries as to how they liked their engine, and was told that no ordinary man ought ever to tackle any kind of a gas engine; that they required too much specialized knowledge for anyone of ordinary intelligence to be able to run one successfully. If these people should happen to see some men, whom they would be apt to put in the class of men who have the very least amount of technical or common education or intelligence, and would see this class of men successfully taking care of gas engines, they would be obliged to admit that either their own intelligence was exceptionally poor in quality or else that they were mistaken in their views.

It is an undeniable fact that there are many men absolutely devoid of what is usually called intelligence, and yet who are able to operate gas engines without trouble. As one Southerner said: "There is an old negro near here who never has a bit of trouble with his engine, and he hasn't any brains at all, yet he gets along all right." We must, therefore, admit that technical or specialized intelligence is not always necessary. It undoubtedly is necessary with some of the more complicated engines, and yet a good quality of judgment and common sense is more important in the successful operation of a gas engine than any other one thing. Without this the engineer is bound to have trouble, no matter how technical his education may be. But when to this trait of good common sense and judgment is added some technical knowledge of the principles of operation of a gas engine, the operator becomes all the more capable of getting the very best results from his engine.

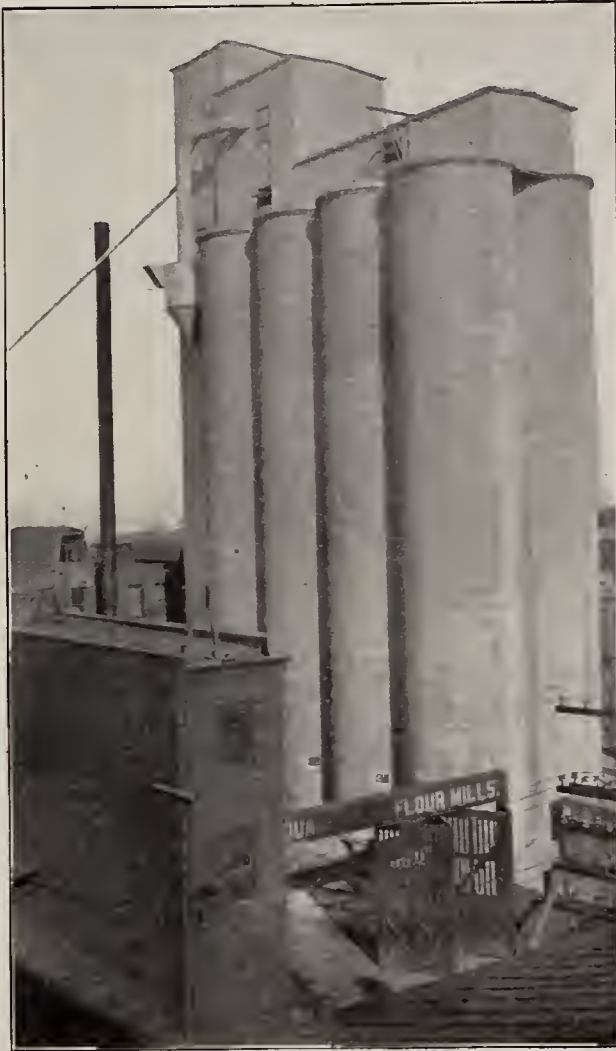
Consul-General Skinner, in reply to inquiries, writing from Marseilles, France, says: "American corn oil, while not unknown in Marseilles, has been received thus far in small sample lots only. It has no current value; and I am told that it is not as saponifiable as either arachide or cotton oil. Soap makers value it at from 29 cents to 38 cents per 220 pounds less than ordinary oil of soap-making quality, which at this date is selling at \$9.57 per 220 pounds. I am told that fairly large quantities of corn oil sometimes find a sale at Trieste, and on the English market it is currently dealt with. Marseilles is itself the greatest oil manufacturing center in the world and frequently exports industrial oils to the United States, so that under ordinary circumstances the opportunities for marketing corn

oil in southern France are limited. The same is true of corn cake. The duty on corn oil is 15 francs (\$2.90) per 220 pounds.

CONCRETE GRAIN TANKS AT PHILADELPHIA.

The Quaker City Flour Mills of Philadelphia, now in the seventy-first year of its business existence, recently entered upon an extensive remodeling of its plant, including the erection of the grain storage tanks shown herewith.

These new tanks were commenced last August by the Chicago Grain Elevator Department of James Stewart & Co. and were handling grain at the end of the year. There are in all eight tanks with combined capacity of 100,000 bushels.



CONCRETE GRAIN STORAGE TANKS.

Grain bins intersperse the tanks, holding in all 14,000 bushels. Each tank is 85 feet in height with diameter of 15 feet and they are built on a foundation of concrete with reinforced floors. The walls of the tanks are of seven inches thickness, strengthened by circular steel bands one foot apart from top to bottom, so placed in the concrete that the first one is 1½ inches from the outer surface of the wall, the second 1½ inches from the inner surface of the wall and so on to top of the tank. There is also perpendicular reinforcement consisting of steel rods placed every three feet around the circumference, alternating, with one 1½ inches from outer surface, the following 1½ inches from inner surface of the tank. The roof is block tiling resting on steel beams. There are conveyors at both top and bottom of the tanks for handling the wheat.

The working house is 12x16 feet and built of steel and sheet metal. It is provided with wheat leg of 6,000 bushels per hour capacity, also coal leg, and the plant is equipped with H. L. Day's Dust Collecting System of Minneapolis. Communication is made from the tanks to Pennsylvania Railroad by tunnel beneath the mill.

The officers of the Quaker City Flour Mills Company are Samuel Bell, Jr., president; C. H. Bell, vice-president; F. B. Annadown, treasurer, and L. G. West, secretary and manager. The mill grinds winter wheat entirely, the supply being drawn from Eastern Pennsylvania and neighboring states.

[For the Indiana Grain Dealers' Association.]

THE HESSIAN FLY.

BY F. M. WEBSTER,
Of the United States Department of Agriculture.

[Concluded from the January Number, p. 371.]

Taking, now, under consideration the opposite conditions of poor seed, a thin or very poor soil, improperly prepared, and we have almost exactly the story of the stunted pig, calf or colt. The poor kernel will send out weak shoots and rootlets, the latter into an infertile soil improperly prepared, and the weakened plant is in poor shape to tiller at all. If the first shoot is attacked and killed, there is not sufficient vitality left to admit of much tillering, and where a few stray tillers are put out they are necessarily half-starved and stunted, rarely, if ever, sufficiently strong to withstand the rigors of winter.

These two illustrations I have presented have not been overdrawn. Indeed, there is none before me who cannot find more or less modifications of them in his own neighborhood.

It has been known for nearly a century that late sowing of wheat in the fall is an effectual measure of prevention. A very large majority of the flies will emerge, deposit their eggs and disappear, all within the space of a few days, in any given locality. Not infrequently wheat sown on a certain date will be seriously damaged, while an adjoining field will almost entirely escape injury. This precipitate appearance and disappearance of the fly is invariably encountered where the insect is reared artificially under natural conditions. While the Hessian fly will deposit its eggs on other vegetation, it can only live and thrive on wheat, barley, and, to a limited extent, on rye. Therefore, it is clear to anyone that if no wheat plants are above ground at the time during which the flies are abroad and laying their eggs, there will be no injury. If there are few eggs deposited for the fall brood, there cannot be a dangerous spring brood the following year.

We have, as yet, no practical means of reaching the pest in the fields in spring; therefore, all preventive measures must be applied in the fall and against the fall brood of fly. As early sown wheat is everywhere most seriously affected in the fall, moderately late sowing becomes an efficient and practical measure of prevention.

As has been stated, the time of appearance of the fall brood varies with latitude and meteorological conditions, and the farmer must determine for himself the best time to sow his wheat in the fall to escape injury. Once determined in a neighborhood, and the effect of weather conditions understood, the farmer can determine sufficiently accurately for practical purposes the time when he may sow his wheat and escape serious ravages of Hessian fly; and if all farmers in such neighborhood combine not to sow before a certain date, the pest may thus be kept in continual subjection; but a few fields sown at a critical time will produce sufficient flies in spring to migrate and not only stock adjoining fields but totally ruin late sown fields where none had existed the fall previous.

The fly has some peculiar habits and proclivities which, if understood, will render many obscurities quite intelligible. When the females are abroad depositing eggs, they seem to prefer to oviposit on young plants, rather than on older and tougher ones. For this reason, with fly abundant, very early sown wheat will frequently escape attack, while that sown a little later and only commencing to tiller, will get the undivided attention of the ovipositing females. If three fields, A, B and C, are located side by side, and the flies emerging in the fall from B find the plants too far advanced to suit their requirements, they will seek either A or C; and if the plants here suit them better, there will be more destruction there. If no plants are growing in either A or C, they will attack B, but probably will not develop there as freely as on later sown grain. Again, if when the females emerge, the prevailing winds are across A and B, the flies will be carried to C and away from A, with the result that even though sown at the

same time, one may be more seriously infested than the other. Again, B is sown at a time to attract the fly and the wheat plants are killed out in the fall, while A and C, sown later, escape. In the spring the flies emerge and drift over both A and C, and destroy the crop, though not a single female may have originated outside of B; thus, the early sown develops flies enough to destroy surrounding fields in spring. Whereas, had all fields been sown late, there would have been no damage in any of them. Generally speaking, it is the man who sows rather early and continuously on the same ground that jeopardizes his neighbor's wheat crop.

No variety of wheat is known to be immune. A hardy, vigorous grower, one that will root quickly and strongly, thus enabling it to throw up tillers after the fly has done its work and disappeared, and these tillers prove sufficiently hardy, will suffer least from a fall attack, and a strong stiff straw will be less seriously affected by the spring attack, though these virtues may not be at all times sufficient.

If, instead of searching for a flyproof, or immune, variety of wheat, efforts are put forth to breed up a variety that will send out a strong root system, sufficiently hardy to enable the farmer to sow late and get plants that will withstand the winter, even though young, and send up stiff, strong stems in spring, we shall come nearer gaining our object than in any other way. Good soil, properly prepared, will, of course, as now, be very essential to securing this late, hardy growth in the fall. No form of fertilizer will do more than to put vigor into the plant, and especially into the root system, which will itself strengthen and invigorate the late tillers, starting their growth quickly and pushing them rapidly in spring. A fertilizer strong in phosphates will be most likely to fill this requirement. No kind of fertilizer known at present will have any effect on the insect itself.

It does not seem necessary for the intelligent wheat grower to be so much in the dark regarding the presence of Hessian fly in his fields as he is at present. The effect of the pest on young wheat in the fall is so marked that no one need be misled. A plant infested by fly is always of a darker color and the leaf is broader. This is less marked in varieties of hard than in soft wheats. The growth of the plant is erect, standing almost straight up in the drill row—a mass of rank-growing leaves, with no central spindle-like leaf that is always found in a healthy plant. Once familiar with this difference in appearance, a farmer never needs to dig up a plant to detect the presence of the fly, as, by walking over his field, he can detect these erect, darker-leaved plants, or even tillers, at a glance. In early summer, just before harvest, he will be equally as able to detect the presence of fly by the straw breaking over, either at the ground or one of the lower joints. He can also determine for himself exactly when the flies are abroad in greatest numbers in the field, by getting a supply of infested straws or stubble, placing it in a box out of doors, and covered with a screen of fine cloth. Another way is to fill an ordinary glass fruit jar with these infested straws or stubble, covering the mouth of the jar with thin cloth, keeping the jar outside so as to get the same weather conditions as in his fields. When his enclosed straw or stubble develops flies, he will know that they are abroad laying their eggs in the field.

When, as is sometimes the case among the best of farmers, it becomes necessary to grow successive crops of wheat on the same ground, burning the stubble before plowing for the following crop is a drastic and efficient measure of destruction. If the grain is cut rather high at harvest and a mower run over the field a few days prior to burning, all weeds and grass will have become dried and thus add to the fuel necessary. By selecting a day with a good wind much of the ground can be burned over and the pest thus destroyed. Where the ground has been seeded

with grass or clover, as is often the case, burning is, of course, impracticable.

Pasturing is sometimes resorted to in the fall, but this is rather an uncertain method of destroying the pest. If not carried to extremes and practiced only during reasonably dry weather, it is frequently beneficial.

Much may be accomplished, especially to the southward, by destroying all volunteer wheat. It frequently occurs that early-appearing individuals lay their eggs on this and flies develop there early enough to give rise to others that, even if they emerge late in the season, may lay eggs and the young become sufficiently advanced to withstand the winter and thus increase the danger another year. The sowing of strips along the borders of

The members of the weighing and inspection committee were: T. J. Stofer, inspector of liquids; J. A. Seymour Jr., inspector of vegetables; Hayden Newhall, inspector of ice cream.

A NEW ENGLAND CORN MILL.

Herewith we show a cut of the Cutler Company's up-to-date plant at North Wilbraham, Mass. This company rank among the leading corn millers of the country and they have recently remodeled and enlarged their buildings, giving larger capacity and storage room to take care of their increasing trade. They have been considering this change for some time, so have been enabled to incorporate many good points de-



CORN MILL OF THE CUTLER COMPANY AT NORTH WILBRAHAM, MASS.

fields is often recommended as baits, to be plowed under later, but the real benefit of these is doubtful, and if care is not exercised to plow them under at the right time, they may even be detrimental.

The whole subject of combatting the fly may be summed up as follows: Secure as fertile soil as possible; prepare the ground thoroughly by pulverizing and compacting the soil, and do this early; secure good seed of a vigorous, stiff-straw variety; defer sowing until the flies have come and gone, then rush the seed into the ground as rapidly as possible; do not sow two years in succession on the same ground; if commercial fertilizers are used, apply something as rich in phosphates as possible. In short, sow late and rush your plants by every possible means until winter stops their further growth.

THE BUFFALOES FEED.

The grain section of the Buffalo Chamber of Commerce held their annual dinner at the Iroquois Hotel, Buffalo, in February, being the fourth dinner of the series. S. E. Provost presided as toastmaster, who negotiated the following responses: "Why I Became a Christian," O. A. Bruso; "The Corn Exchange," H. C. Harrison; "100 Years in the Grain Business," J. A. Seymour Jr.; "Pro Bono Publico," Nesbit Grammar; "Me and Togo," Walter Voss; "The Joy of Living," J. D. Shanahan; "Watch Us Grow," G. H. Gisell; "On the Job," F. G. Winter; "At the Sign of the Three B's," B. J. Burns; "Something Elevating," H. J. Smith; "Fads and Fancies," R. W. Searl; "Reminiscences," Richard C. O'Keefe.

The committee on arrangements was composed of: George H. Gisell, chairman; O. A. Bruso, John D. Shanahan, Howard J. Smith.

veloped by others as well as use many ideas of their own.

Their buildings cover one acre of ground and include a storage plant for bulk grain and sacked feeds. The mill proper is 76x36 feet, four stories in height, and their grinding capacity is 6,000 bushels of corn per day. As they have both steam and water power, the mill is never idle on account of lack of power.

In addition to their output of corn products they also have storage capacity for 2,000 tons of sacked feeds, and the business consists in shipping mixed cars of meal, corn, oats and feeds throughout the New England territory.

They also manufacture the well-known Cutler Steam Drier, and operate a well-equipped machine shop for turning out these machines.

The Philadelphia record of exports in grain for February for the last ten years was broken last month, when shipments aggregating 2,527,702 bushels left that port. The shipments were principally of oats and corn.

During February the shipments of grain from Boston were the heaviest since 1901. A fleet of 31 transatlantic steamers sailed during the month, 26 of which went direct to Europe and five to Hamburg, Hull or Antwerp via New York or Baltimore. The wheat shipments amounted to 2,156,011 bushels.

A charter has been granted to the Gertie Agricultural Company, of Shelby County, Tenn. The capital stock is \$50,000. The company to grow rice, and is chartered to construct, maintain and operate lakes, wells, canals, etc., and other appurtenances as may be necessary or convenient for the purposes of irrigation. The incorporators are all well-known financiers and capitalists of Memphis.

WATER-PROOFING TRANSMISSION ROPE.

There is a large demand for a first-class water-proofed transmission rope. Of course, the principal use of this rope is on drives exposed to the weather. On such drives, when using single ropes, there is often trouble from the stretching and shrinking of the rope, caused by changes in the weather. Sometimes this trouble is quite serious, the shrinkage of the rope pulling down shafting, or at least causing hot bearings. On account of this stretch and shrinkage outdoor drives are usually made on the American System, using a tension carriage, which takes care of the variation in length. This increases the cost of the drive; and the rope does not last long because it is affected so much by dampness.

Mills and grain elevators to which additions are made, usually have the new buildings at a short distance from the main plant, and drive across the open space by means of ropes. In designing new plants it is advisable, in many cases, to have the shafts project through the walls and drive along the outside of the buildings with ropes. This saves space inside, especially head room, as the shafting can be placed higher and large sheaves can be used for driving. The lighting will also be better. Waterproofed rope makes such an arrangement satisfactory.

There is also quite a demand for a rope which will not be affected by the hot, damp summer climate. There is usually a great deal of trouble in these mills when starting up in the fall, as the ropes are left on the drives during the summer and are weakened by the causes mentioned. On rice plantations it is becoming quite a usual thing to drive the centrifugal pumps by means of ropes, which, of course, are exposed to a great deal of dampness, and are frequently wetted.

The same is true of ropes used to transmit power from water wheels. In paper and pulp mills there is also a demand for waterproofed ropes, as belting will not stand extreme humidity of the air.

The American Manufacturing Company, 65 Wall Street, New York, has been experimenting for a long time to make a waterproofed rope, and the article now being introduced is the result of many experiments, carried out under the supervision of J. B. Upright, superintendent of its Brooklyn mills. In testing this rope it has been hung in the East River for long intervals, to determine its water-proof qualities, and has been run on the company's outdoor drives over a year. One of these drives consists of ten 1¾-inch ropes, running almost the full length of the roof of a four-story building 225 feet long, which is on the water front of the East River. After running for some time the rope becomes perfectly smooth and highly polished. The waterproofing fills the jaw of the rope, preventing the accumulation of moisture in the crevices and this waterproofing being elastic remains in place, even while the rope is running around the sheaves.

The waterproofing adds about 2 per cent to the weight of the rope, which lasts as long as standard transmission rope, for in addition to the waterproofing it is thoroughly lubricated internally with flake graphite. The ropes run on the roof drive show no more wear than ropes in the mills which have run for the same length of time, under the most favorable conditions. On its machines the American Manufacturing Company makes coils of transmission rope 10,000 feet long without a splice.

"London arbitration" will not be as impressive with at least one American grain shipper as it formerly was, says the Record-Herald. A wheat shipment from a gulf port contracted "direct or indirect" in the ordinary way, was refused by the august body of London grain merchants, because it had first gone to Bremen to unload the cotton cargo, which prevented the removal of the wheat from the lower hold of the vessel. The technical point raised by the arbitrators aforesaid was that the delivery was not good, because Bremen was a port "beyond" London in-

stead of intermediate from point of shipment. The shipper asked the pertinent question if this technicality would have been raised if the wheat price had advanced instead of declined while the cargo was en route. This did not interfere with the decision that the buyer was not bound to accept the grain.

THE CORN KERNEL.

To the old-time farmer and dealer corn was corn and nothing more. Now corn is anything the consumer requires; it is high in starch, for the starch and glucose manufacturer; high in protein, for the stock feeder, or contains an unusual percentage of oil, for the maker of corn oil. In fact, corn is in a fair way to being "all things to all men," the result of scientific selection and breeding.

Great progress has been made in this work during the past few years, especially at the Illinois Agricultural Station. As Dr. C. G. Hopkins of that points out, there now exist markets and demands for different kinds of corn. Stock feeders want corn with a high protein content, the manufacturers of starch and glucose sugar and other products made from starch want an increased percentage of

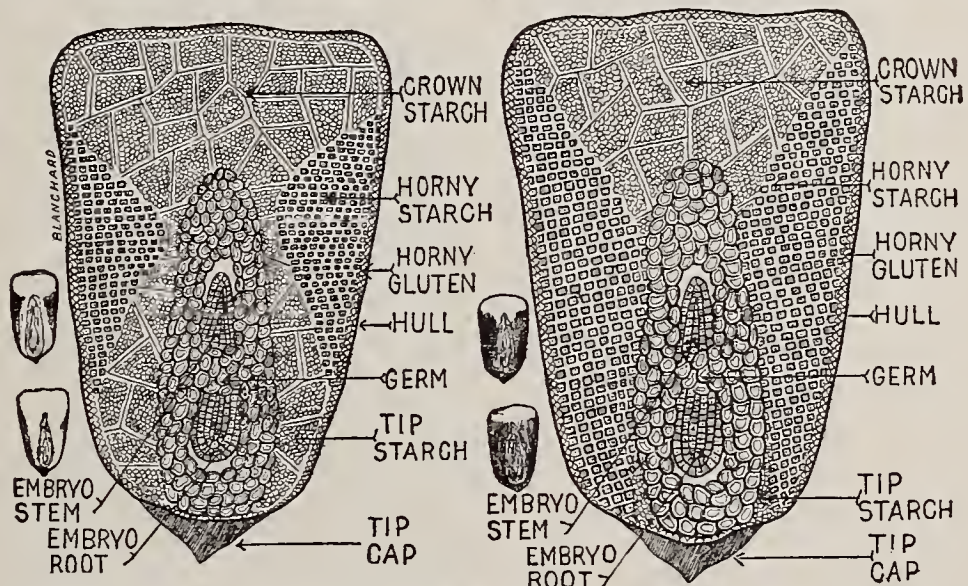
rounds the germ. It comprises about 25 per cent of the kernel (less in high protein corn and more in low protein corn). It is poor in protein (5 to 8 per cent).

The germ occupies the central part of the kernel toward the tip end. It comprises about 11 per cent of the kernel (more in high oil corn and less in low oil corn). The germ contains from 35 to 40 per cent of corn oil, or from 80 to 85 per cent of the total oil content of the corn kernel.

High protein corn contains a large proportion of the horny parts (both of the horny glutenous part and the horny starchy part) and a correspondingly smaller proportion of the white starchy part. The horny parts comprise more than 60 per cent of high protein corn, and contain about 80 per cent of the total protein content of very high protein corn.

THE UNIFORM BILL OF LADING.

There is one thing that we wish to call the attention of the membership to, said President J. A. Heath of Lenox, Mich., to the late annual meeting of the Michigan Bean Jobbers' Association, and that is the fact that, although the railroads do not insist upon the use of the uniform



CROSS-SECTIONS OF CORN KERNELS, SHOWING VARIATIONS IN COMPOSITION.

that constituent, while the corn oil makers are demanding corn with all the oil possible.

The Illinois Station has made a very thorough study of the structure and the composition of the different parts of the corn kernel, with a view to working out practical methods of selecting seed with reference to composition. Summing up these investigations, it is stated that "the kernel of corn consists of six readily observable and distinctly different physical parts, which are known as (1) the tip cap, (2) the hull, (3) the horny gluten, (4) the horny starch, (5) the white [crown] starch, and (6) the germ." (See cut.)

The tip cap covers the tip or base of the kernel and comprises only about 1.5 per cent of the grain.

The hull is the very thin outer coat. It comprises about 6 per cent of the kernel and contains a lower percentage of protein (about 4 per cent) than any other part of the kernel.

The horny glutenous part (aleurone layer) lies underneath the hull surrounding the kernel. It comprises from 8 to 14 per cent of the grain (being more abundant in high protein corn), and it contains from 20 to 25 per cent of protein, being the richest in protein of all the parts of the corn kernel.

The horny starchy part is the chief substance in the sides and back of the kernel (the germ face being considered the front of the kernel). This substance comprises about 45 per cent of ordinary corn, but is much more abundant in high protein corn and less abundant in low protein. Although rich in starch, it contains about 10 per cent of protein (more in the high protein corn and less in low protein corn). It contains a greater total amount of protein than any other part of the kernel.

The white starchy part occupies the center of the crown end of the kernel and usually partially sur-

rounds the germ. It is the only kind that is furnished to shippers; and from positive investigation we know that 90 per cent of the shipments that are being made at the present time on the railroads of Michigan are billed out on what is known as "Uniform Bill of Lading," wherein all the objectionable features of this document are retained.

We have positive knowledge of the use of this objectionable form of bill of lading by considerable shippers without any objection at all upon their part. While this class of shipments may not be fraught with any danger to the shipping interests, it occurs to us that if at some future time the railroad people can show that 90 per cent or more of the business is being carried on without any objection on the part of the public, and that the entire losses to the public attendant upon their use have been practically nothing, then the objections of the few who can see great danger will have but little effect upon the transportation companies.

We believe that this Association should go on record as demanding from the transportation companies a plain, straight, uniform bill of lading, without reservations of any kind, except such as are known to common law and strict justice to all concerned.

Grain exports from New Orleans in February were: wheat, 200,000 bushels; corn, 4,072,179.16 bushels; oats, 305,000 bushels; barley, 230,511.42 bushels.

If anybody offers to do your fresh Chicago business for less than quarter cent, spot them. They are not members of the Chicago Board. Members there would be expelled if they did.—C. A. King & Co.

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

NEW ELEVATOR COMPANY.

Editor American Elevator and Grain Trade:—A new elevator company was organized here on February 17, and its officers elected for the ensuing year were as follows: M. Falda, president; directors, C. Falda, Allen Croford, C. Groth, E. E. Coyer, A. N. Helder. They will soon build a new crib elevator, 10,000 or 15,000 bushels' capacity, with gas engine, wagon and hopper scales, cleaning machinery.

Yours truly, N. C. RASMUSSEN.
Fairview, S. D.

NEW INSPECTION RULES AT CHICAGO.

Editor American Elevator and Grain Trade:—At the meeting of the Railroad and Warehouse Commissioners, held Thursday, February 15, 1906, all of the rules which were recommended at the meeting of the grain trade January 25 to the Honorable Board of Railroad and Warehouse Commissioners were adopted, in effect March 10, 1906, with the exception of the clause referring to sulphured or chemically treated oats. This clause was cut out by the Railroad and Warehouse Commissioners and will stand as was printed in the proposed grades which I submitted, reading, "Oats that have been sulphured, bleached or chemically treated shall not be graded at all."

Yours very truly, W. S. COWEN,
Chief Inspector.

Chicago.

A PROBLEM SUBMITTED FOR OPINIONS.

Editor American Elevator and Grain Trade:—We desire to take advantage of your "Communicated" columns to obtain information covering a question which has just recently arisen, and one we have never heard of before.

On the 17th of a given month, a Mr. Seller telegraphed to a Mr. Buyer as follows: "Can you handle two cars cane seed, \$1.50 delivered; shipped Santa Fe? Answer by telegraph immediately."

Buyer at once replied: "No. Buying much cheaper. Offer \$1.45 sacked; \$1.38 bulk, subject to your immediate telegraph acceptance."

Seller promptly accepted by wire, saying: "Accept your offer two cars cane seed. Where bill it?" And followed this by immediate confirmation by mail.

The reader will please note that, in none of these telegrams was anything said by either party as to time of shipment, so that under the general custom and the national trade rules, "where no time is specified, it shall be understood to mean ten days' shipment."

The next day, about twenty-four hours after the buyer's offer was accepted, and in response to seller's inquiry: "Where bill it?" buyer wired seller as follows: "Skeptic (translated, ship immediately) one car to —, sacked; other to —, sacked or bulk." On receipt of which cars were ordered; and on the ninth day of the contract (which buyer's telegrams indicate he supposed to be the tenth) buyer telegraphed seller, canceling contract, to which seller makes answer that time has now expired. Buyer then comes back, claiming that his use of the word "Skeptic," although not used until next day after the deal was made, entitled him to restrict seller to "immediate shipment."

We desire to ask, can one party to a contract bind the other, at a subsequent date, to restrictions or conditions not provided in the original contract, and of which the second party had no

knowledge at the time the contract was made? In this case, the seller could not have made technical "immediate shipment;" hence, could not and therefore would not have agreed to it had such stipulations been mentioned in buyer's offer. Can he, therefore, be subsequently bound to restrictions which he could not have originally agreed to nor fulfilled had he known of them at time original contract was made?

Furthermore, if buyer had been sincere in his position, why did he not send his cancellation telegram at the expiration of his alleged "immediate shipment" limit, while the market was steady and seller could have sold without material loss, instead of waiting until what he had erroneously figured as the tenth day, at which time the market was several cents lower?

The seed was shipped on the tenth day, according to national trade rules. Can buyer be held liable for the loss that resulted? It seems to us that this is a point of considerable interest to the trade in general. It certainly is to us in this instance, and we should very much appreciate receiving many answers hereto from experienced dealers, either through the columns of your journal, or, if they prefer, by direct correspondence. We ask for information, and should like to know how experienced dealers construe this point.

Very respectfully,

THE BENNETT COMMISSION CO.

Topeka, Kan.

A CO-OPERATIVE ELEVATOR REPORT.

Editor American Elevator and Grain Trade:—Enclosed find a report of the financial condition of the farmers' elevator at El Paso, Ill., which they got out themselves. This elevator has been running three years, and during that time through mismanagement has lost \$10,000, as they have their building valued at least \$2,500 too high.

ZENO.

Official report of the El Paso Elevator Company, El Paso, Ill., commenced business in January, 1903 (report dated February 15, 1906):

RESOURCE AND LIABILITY ACCOUNT.

Resources.		Liabilities.
Elevator valued by directors.....	\$7,700.00	
Grain on hand.....	249.76	
Due from William Fevers.....	500.00	
Due from Jno. Hoefler, on note.....	410.00	
Due from Francis Pfister.....	20.00	
Due from Frank Dehority.....	25.00	
Due from W. Klug.....	15.00	
Due from P. Haas, 52 bu. and 43 lbs. corn (borrowed).....	20.42	
Coal on hand.....	169.75	
Coal accounts.....	725.05	
Oil on hand.....	9.00	
Belt dressing on hand.....	4.00	
Stamps on hand.....	.70	
Cash in bank Feb. 15, 1906.....	1,815.75	
Cash in safe Feb. 15, 1906.....	21.60	
Estimated amount due company from Freeman Bros.....	10.00	
Stock.....		\$ 8,580.00
Bills payable.....		10,000.00
Estimated amount due—		
John Wade & Son, overdrawn..		100.00
Due W. M. Bullock.....		100.00
Check in favor of W. M. Bullock, not yet cashed at bank.....		394.24
	\$11,696.03	\$19,174.24
Net loss.....	7,478.21	

LOSS AND GAIN ACCOUNT.

		Loss.	Gain.
Repairs and depreciation on elevator and coal sheds.....	\$ 452.63		
Grain account—			
Amt. paid for grain.....	\$348,422.76		
Amt. recd. and grain on hand.....	347,674.00—	748.76	
Gen'l expense acct.....		3,231.76	
Int. and exch. acct.....		1,075.88	
Salary account—			
E. L. French.....	600.00		
S. W. Neville.....	2,145.00		
P. Roberts.....	325.00		
F. Koerner.....	1,070.00—	4,140.00	
J. G. Jones broke up owing company....		64.31	
Coal account—			
Amt. recd. for coal and coal on hand.....	14,843.55		
Amt. paid for coal.....	13,679.66—	\$1,167.89	
Received on ¼-cent tax.....		1,003.43	

Recd. from sale of oil and grease	3.50
Everingham & Co. broke up, company owing them.....	27.29
	\$2,202.11
Net loss.....	7,511.23
	\$9,713.34
	\$9,713.34

UNIFORM INSPECTION A DELUSION.

Editor American Elevator and Grain Trade:—Uniform inspection of grain is a delusion. The same kind of grain grown in different localities often possesses essentially different characteristics which may render it desirable for some purposes and undesirable for others. These characteristics soon become known to the trade, including millers, maltsters and other manufacturers, as well as foreign buyers, and hence it is important that the local identity of grain should be retained as far as possible. This is one reason why uniform national inspection of grain is impracticable and undesirable.

This Chamber of Commerce has always taken the ground that the inspection of grain should be under the control of the commercial bodies where it is received and sold. We believe this system is more satisfactory and more economical than state inspection, which unavoidably becomes more or less of a political character, and that it makes for the benefit of the producer and consumer alike. The legislature of Wisconsin has recognized the force of our position in this respect, and in framing a state inspection law to accommodate certain special interests, made it applicable only to places containing less than a hundred thousand inhabitants, thus leaving the Milwaukee inspection system undisturbed.

Yours very truly, W. J. LANGSON,
Secretary Ch. of Com.

Milwaukee, Wis.

ORDER BILLS OF LADING.

Editor American Elevator and Grain Trade:—H. R. Bill 15,846 has been introduced in Congress by the American Bankers' Association (representing over 8,000 financial institutions in this country) in order to overcome many of the serious defects in the varying forms of bills of lading in use by the different transportation lines, and if passed will kill the so-called uniform bill of lading which the carriers recently attempted to force upon the business interests, and although temporarily withdrawn may come up again unless checked by the proposed legislation.

I also send you circulars fully explaining the purpose of Bill 15,846, which will give you all the data necessary; and as this is the latest phase of the bill of lading matter, it will doubtless prove very interesting to your readers.

Yours very truly, CHARLES ENGLAND.
Baltimore, Md.

[The chief document referred to by Mr. England is the following, issued from the office of the chairman of the Committee on Bills of Lading for the American Bankers' Association, New York:]

To Boards of Trade and Grain and Cotton Exchanges and their Members:—The American Bankers' Association at its last annual meeting adopted a resolution under which a Committee on Bills of Lading was appointed, and this committee has had several conferences with the Bill of Lading Committee of the carriers operating in a large part of the country, with the idea of securing a negotiable bill of lading which shall be a proper document for banks to accept as collateral. This committee has come to the deliberate conclusion that national legislation is the only effective remedy for the evils now attendant upon the use of bills of lading as collateral; and this conviction has been more firmly emphasized as a result of several conferences with the carriers' committee.

Judging from the responses which have come to us from inquiries previously addressed to our members, it is safe to say that there is annually advanced by the banks of the country the sum of \$2,500,000,000 upon the security supposed to be afforded by a pledge of the merchandise represented by "order" bills, and that not only are numerous and heavy losses met by banks for the reason that present conflicting state laws do not protect the holders of such bills, but that all oth-

ers handling them, namely, the shipper, commission merchant and exporter, are exposed to the same risks.

The bill as proposed embodies the following features:

1—The issuance of order bills in which the words "order of" shall be PRINTED.

2—To provide for full negotiability.

3—To prevent any alteration from interfering with enforcement of bill according to its original tenor.

4—To relieve banks handling such documents from undertaking any responsibility as to quantity or quality of goods.

5—To keep valid a bill until its actual surrender and cancellation by the carrier.

6—To hold carriers responsible for the acts of their agents in issuing bills of lading.

Your interest is therefore solicited; and as the importance of the subject must appeal to your members, may we not ask that your organization adopt suitable resolution and forward a copy thereof to the Committee on Interstate and Foreign Commerce of the House, and that those connected with your body exert themselves personally in the same manner? Failing proper relief, it is inevitable that as soon as banks generally more fully appreciate the effect of recent court decisions THEY CANNOT LONGER ACCEPT AS COLLATERAL SUCH PAPERS unless better protection be afforded them as the result of national legislation. The passage of this bill will greatly promote the ready financing of interstate commerce, as a very large number of banks which under present conditions will not make advances on such documents will be only too ready to accept order bills as collateral if their status can be established beyond question. The SMALLER SHIPPER WITH ONLY MODERATE CAPITAL would be greatly benefited, as with a properly guarded order bill he could easily and promptly convert his goods into cash.

May we further suggest that in urging your senators and representatives to support the measure, you request its passage in its present form, as we have engaged with the committee of the carriers to do everything in our power to prevent amendments which would enlarge the scope of the bill?

Respectfully, LEWIS E. PIERSON,
Chairman.

New York City, March 8.

I. C. LEASE AT NEW ORLEANS.

The Illinois Central Railroad Company has leased the new grain Elevator E at New Orleans to the Rosenbaum Grain Company. This leaves New Orleans without any public elevator, the other elevators of the port, Elevator D (leased to Harris-Scotten Co.), which, with Elevator E, is located on the Stuyvesant Docks, and those at Chalmette and Westwego, being under lease to other companies operating as exporters through New Orleans.

It was rumored on 'change, when the announcement of this lease was made, that it would be attacked before the Commerce Commission on the ground that the payment of the elevator allowances to the lessees was equivalent to a rebate, giving the lessees control of the export business, to the complete exclusion of the local receivers; but it does not appear that anything has been done in that direction up to this writing.

When this talk appeared in the local papers, E. F. Rosenbaum, vice-president of the Rosenbaum Grain Company, then in the city, denied that the lease would be prejudicial to the local interests of New Orleans as a port. "It is his contention," said the Times-Democrat newspaper, "that it is impossible to conduct a grain business in the face of modern conditions without having the control of the elevators through which the grain must be moved." And the newspaper goes on to say that Mr. Rosenbaum "treated as absolutely absurd the statement that the consensus of opinion among the local men was to the effect that under the new lease they would be frozen out of business, as their competitors would be paid for handling the grain they brought into the city." He further "stated that the cost of the storage of grain to the local firms would not be increased in the slightest. These firms have at present the privilege of storing their grain in the elevator free of charge for twenty days, and the shipper can put his grain through with-

out it costing him one cent. When asked to explain this latter statement, he said that the railroad rate at present includes the cost of transferring the grain by the elevator and no additional hardship would be imposed upon the shipper by the elevator passing under the control of the Rosenbaum management."

In spite of the denial of the Illinois Central Company, local grain men are very much wrought up over the announcement that the Rosenbaum Company and the railroad have closed the deal whereby the elevator goes under the control of the former company, says the Times-Democrat.

WHAT COULD HE EXPECT?

The great American public, as a rule, likes to take a chance, even at long odds. It is merely a matter of taste, and the millionth man may win a fortune. But how foolish to go up against a game where you have no chance whatever, as



TAKING CHANCES ON A DOOR.

the shipper did who sent out the car of grain shown in the illustration.

This car was unloaded at Calumet Elevator, South Chicago, January 31, and the grain door had bulged and was leaking. The railroad company should have provided a good door, but not having done so, it would have been better for the shipper to have paid a dollar for one than to take the chance of the old door leaking.

Even had the shipper known the car would leak and the railroad would pay his claim for shortage promptly, he would be financially better off if he had purchased a good door and prevented the shortage. For the railroads, in settling claims for shortages, deduct one-half of one per cent for shrinkage. On a 60,000-pound car this would be 300 pounds, or 10 bushels of oats or five bushels of wheat. This amount is deducted before going into the shortage question at all, so that the 300 pounds is a total loss anyway, and this 300 pounds represents considerably more than the price of the good car door.

The history of this particular car door was evidently a sad one. On its trip to the terminal previous to the one wherein it is shown in the cut, the elevator employes had found it necessary to break the lower part of the door in order to swing it up to its proper place for unloading the grain. It would seem after that it was only fit for the kindling pile, and yet this shipper tried to mend it. His work speaks for itself. It is to be hoped that he is a better grain dealer than carpenter

[From the "American Brewers' Review."]

FOR THE ERECTION OF AN EXPERIMENTAL ELEVATOR.

BY WM. H. PRINZ.

Napoleon III said: "The progress of agriculture ought to be one of the objects of our constant care, for upon its improvement or decline depends the prosperity of empires." In olden times, especially with the Romans, farming was considered the noblest vocation and it should be so to-day. All wealth comes from Mother Earth. But why delay action until the ground ceases to be productive, as in many places in the old world and in our own New England states? Just as we are doing with our forests, we are delaying rehabilitation too long. We spend millions to reclaim arid land, and on the other hand create it. As long as we had large regions of new land to open there was not much danger, but we have no more large tracts within the borders of our country to open.

There has been a big drop in yield per acre in many states, which forces the farmer to stop raising small grain, such as wheat, rye, barley and oats. The line where small grain can be raised profitably is fast moving north with every new crop, and we have to look now to the northwestern part of Canada for our better grades of milling wheat. It is the same with barley, the oldest grain known to mankind, and the least understood as to its food value for man and beast. Out of a barley crop of one hundred and thirty million bushels not one-third is fit for malting purposes, the rest being musty and heated, and such grain cannot even be wholesome food for cattle. A little barley flour can be used to advantage in making bread; if mixed with wheat flour it will tend to keep the bread fresh and will make a bread far more wholesome than our present all-wheat bread. The writer remembers the time when good wheat and barley, and with a good yield per acre, were raised in Tennessee, Kentucky, Indiana, Ohio and Illinois. Now it is mostly corn. Corn has forced all small grains up into Minnesota and Wisconsin. But this continual raising of corn gradually but nevertheless quite speedily ruins the land. Crop rotation is necessary to keep the ground in proper condition and to produce plentiful crops with the use of proper fertilizer. The state of Wisconsin last year showed the largest crops per acre, also the most money made per acre, because the farmers of that state raise different kinds of grain, and mostly small grain. In this connection it might be added that liquid manure is not properly estimated. When properly understood and used more extensively and in the proper manner, a little will go far, as it is easily absorbed by the roots of the plant.

More attention should be paid to the collection of seed grain, and care taken that it is free from foreign seed, well graded and from the right locality to fit the different soils. What is very important is to select the right species. Interchanging of seed from the North to the South and vice versa would work wonders.

With the great amount of land and the variety of soil and climate in the United States, we should rank first in the world in agriculture. But we do not. England at one time stood very high, but now Germany is coming to the front, as the government there is always ready to assist. Recently it has established an experiment elevator called the "Versuchs-Kornhaus," where tests are made of the different seed grains as to germinating power and value for milling purposes, redrying of grain to prepare it for storage, furnishing pure seed grain, testing all machinery used in handling grain, and advising the trade in general.

The improvement in agriculture in Germany in the last eighteen years is shown by the following figures: Wheat, 11 per cent increase to the acre; rye, 20 per cent increase to the acre; potatoes, 20 per cent increase to the acre; barley, 3 per cent increase to the acre.

At the same time, we in America are raising

less per acre with every new crop, and in many localities have dropped the raising of small grain altogether. This shows that the time has come that we establish such a station as now exists in Germany. But it should be done on a much larger scale and a broader basis.

If the seed furnished to the farmers by many firms was examined by such a station as I propose, it would not be surprising if many queer things would come to light, as was the case in Germany, where upon examination at the experiment elevator most of the commercial seeds were found to be adulterated with all kinds of material in all kinds of ways, and consisted of different varieties mixed together. I have reports from there showing a state of affairs almost beyond description, and I venture to say that it is the same here, where we have no controlling station. I have found this to be true myself in experimenting with different seeds.

The writer has for years collected information on agriculture with special reference to grain and made numerous experiments, and has come to the conclusion that the only way to clear up the many problems that beset the farmers who want to grow grain, and to produce grain of uniform, reliable character suitable for the various uses to which they are to be put, whether brewing, baking, or even stock feed, and to disseminate the necessary information among the people, will be to establish an experiment grain elevator and scientific station on a comprehensive plan. I believe, with proper management, such an enterprise could eventually be made self-supporting. In order to make this station a success it should be independent and not hampered by politics or red tape, international in scope and strictly scientific, although, of course, with an eye to the practical application of its work.

We have any number of men that made millions out of the ground in different ways. They should come forward and establish such a station. I think if the matter was brought to their attention in a proper manner they would do so and earn lasting appreciation, benefiting the greatest number of people and bringing to perfection one of the noblest if not altogether the noblest, but much neglected, sciences, the science of agriculture.

PUBLIC ELEVATOR AT WICHITA.

The Wichita Board of Trade has evolved a plan to raise funds to build a public elevator at Wichita, Kan., by organizing a stock company to secure a site on the joint tracks in the northern part of the city, and bond the company's property for \$200,000 to build a million-bushel house. President C. H. Gaunt of the Board has appointed J. C. Robb, E. K. Nevling, L. H. Powell, J. E. Howard and F. D. Stevens as a committee to confer with the Wichita Commercial Club and the Chamber of Commerce for the purpose of pushing the proposition to a speedy reality.

C. H. Gaunt, president of the Board of Trade and a supporter of the project, said:

"Owing to the fact that Kansas City has the advantage of Wichita in respect to rates on grain to the gulf, the local grain men want all the advantages they can secure to make Wichita a better grain market. At present there is a 'dead line' commencing at Kiowa and extending through this city to Newton, over which this city can secure practically no business to the gulf trade. We expect to push this 'dead line' back to the main line of the Missouri Pacific in the north part of the state. By doing this Wichita will secure the bulk of the gulf and Texas trade. The public elevator will assist in bringing this state of affairs about."

As the Hepburn bill is now before the senate without amendment, every possible effort should be made to secure its passage. No subterfuge or amendment should be permitted, which will defeat the immediate application of a reasonable

rate named by the Interstate Commerce Commission after a full hearing of all the facts. The burden of proof, thereafter, before a court of review should be upon the railroad companies.—Pope & Eckhardt Co.

A CENTRAL KANSAS ELEVATOR.

Russell County is not one of the greatest grain producing counties of Kansas, but it stands 'way up near the top of the list, with 1,448,810 bushels of wheat last year and 587,027 bushels of corn. It is almost in the center of the state and far out toward that part of the state where only a few years ago, even in a man's span of life, most people looked upon the land as "no good"—too dry. But American land buyers have had to change their opinions of Western lands quite radically of late years.

The county has not a great many railroad stations, but the appearance of the elevator of M. P. Thielen, at Dorrance, seen in the illustration, is indicative of the character of the grain dealers' in-

does not apply to the sale of seed that is grown, sold and delivered by any farmer on his own premises, for seeding by the purchaser himself, unless the purchaser of the seed obtains from the seller at the time of sale thereof a certificate that the said seed is supplied to him subject to the provisions of this law.

Another section provides that no person shall sell or offer for sale any seeds of timothy, red clover or alsike, or any mixture containing the said seeds in or from any receptacle, package, sack or bag upon which is marked "No. 1," or any other designation which represents such seeds as first quality, unless they are free from the weeds named above and are also free from the weeds of whit cockle, false flax, Canada thistle, ox-eye daisy, curled dock, rib grass, etc., and contain out of 100 seeds not less than ninety-nine seeds of the kind or kinds represented, or seeds of other useful and harmless grasses and clovers, out of which ninety seeds must be germinable.

Still another section provides that no person shall sell or offer for sale for the purpose of seeding in Canada the seeds of timothy, alsike, or red clover, or any mixture thereof, if the seeds mentioned in the above sections are present in a greater proportion than five to 1,000 of



M. P. THIELEN'S ELEVATOR AT DORRANCE, KAN.

vestments out there in the West. This house was built in 1904, and in size is 34x38 feet, and 30 feet to the eaves, or 45 feet in the clear, giving a storage capacity of about 18,000 bushels. Its equipment includes an automatic hopper scale, loft of 1,500 bushels' capacity per hour, and 4-horsepower gasoline engine.

During the wheat season of 1905, from August 1 to December 1, the house handled about 50,000 bushels of wheat. Mr. Thielen is also prepared to supply his trade with a general line of mill and elevator stuffs, and does a very comfortable business during the course of the year.

CANADIAN SEED LAW.

The positive refusal of Canadian authorities to permit the removal of wheat screenings containing noxious seed from a Manitoba elevator for export to sheep feeders in the United States has created some interest on this side the line in the law of the Dominion designed to preserve the purity of seeds used in Canada. The law would perhaps be styled drastic on this side the line, because of the absence here of any federal law of like purport, but Wallace's Farmer conceives the Canadian law to have been framed "in the highest wisdom." In a few words its scope is about as follows:

It forbids anyone to have in his possession for sale, for the purpose of seeding, any seeds of cereals, grasses, clovers or forage plants, unless they are free from certain weed seeds mentioned in the law, among which are mustard, wild oats, bindweed, perennial sow thistle, ragweed, great ragweed, cockle, ergot of rye, unless each and every receptacle, package, sack or bag containing such seeds is marked in a plain and indelible manner with the full name and address of the seller, with the name of the kind of seed, with the common name or names of the aforementioned weeds, the seed of which are present in the seed sold or offered for sale. This, however,

the seed sold or offered, exposed or held in possession for the purpose of sale.

In contrast with this, we have the secretary of agriculture warning the public against seed adulterations in this country, which he is able to punish only to the extent of publishing the names of those whose seeds have been found by the Department to be adulterated. The extent to which adulteration is practiced in this country is shown by the statement that the Agricultural Department, through special agents, called on 1,272 seedsmen for samples of red clover and alfalfa seed, as offered for sale by them. From these seedsmen 658 samples were obtained and examined. As a result of the test, three firms were found to be selling red clover seed with adulterants ranging from 10 to 26 per cent, while eighteen concerns were selling adulterated alfalfa seed, some having only 3 per cent adulterants and others containing adulterations as high as 46 per cent.

After serving in two Illinois regiments during the Civil War, F. D. Coburn went to Kansas. Actively engaged as a farmer and breeder of improved live stock until 1880, he was called to Topeka in the service of the state's Board of Agriculture. A year later he was made its secretary, but shortly after became the editor of a prominent live stock journal. In 1894 he was again elected secretary and his re-election at each succeeding biennial meeting of the Board has been unanimous and by acclamation. During the last decade with this Board, Mr. Coburn has prepared fifteen books on agricultural subjects for the Board, in addition to his regular reports as secretary. Mr. Coburn has also been a regent or president of the Board of Regents of the Kansas State Agricultural College for many years.—Exchange.

[For the "American Elevator and Grain Trade."]
**FACTS CONCERNING ST. LOUIS
 WEIGHTS.**

BY L. C. BREED.

The officials and committee of the Department of Weights of the Merchants' Exchange of St. Louis seem to feel that, as an erroneous impression may have been created by an article sent as a communication by a St. Louis correspondent and published in the "American Elevator and Grain Trade" on November 15, it is proper to ask an explanation shall be given concerning the workings of this department, and offer the facts the writer presents for the consideration of all parties interested.

The party who contributed the article referred to, in assuming that the Merchants' Exchange must have the same illegal status as an oil merchant's oil inspector, evidently overlooked the fact that a state oil inspector is a state official whose appointment and compensation is specifically provided for by the laws of the state, and whose powers and duties are clearly defined, and not the mere appointee of a board, or commission, that has no right to usurp powers, the exercise of which was not contemplated in the legislative act to which it owes its existence, and the further fact that the right of the Missouri State Board of Railroad and Warehouse Commissioners to enforce their demand for payment of a fee for weighing outside of public elevators has since been denied by the courts.

The St. Louis receiver asks what would the Merchants' Exchange do in case that they found a scale out of order? The files of this department are full of reports of what the department has done in such cases. During the last two months, the department's expert scale man has condemned eight scales. When these scales were found to be out of order, the department refused to issue further certificates until they had been repaired and put in accurate weighing condition. Should the owner of a scale refuse to have it repaired and the members continue to sell him, the matter would be called to the attention of the board of directors, who certainly have the authority to suspend or even expel members who violate such rules of the Department of Weights as have been approved by them.

On the whole, the article appears to have been inspired by those who seem to wish to antagonize the Weighing Department; to alarm those receivers who declined to recognize the pretended right of the Missouri State Railroad and Warehouse Commissioners to collect a fee for weighing at private elevators, warehouses and mills. If the Commission was absolutely sure of its authority to exact the fee in question, the "collector" with the "strong backing" would long since have knocked at their door.

By way of explanation, it is well to state that, as most of your readers are aware, St. Louis is so situated that grain consigned to this market is unloaded on both sides of the river. According to the regulations of the Exchange, all grain sold in this market, whether unloaded at St. Louis or East St. Louis, is sold subject to its rules and is weighed under the supervision of the Department of Weights. The jurisdiction of the state board is necessarily limited to Missouri, and it is impossible for them to weigh or even supervise the weighing of grain unloaded at East St. Louis. Therefore, they are not in a position to furnish certificates of weight on at least one-half of the grain unloaded in this market.

Owing to the number of complaints that shippers were making on grain consigned to this market, the board of directors of the Exchange, in the year 1901, appointed a committee for the purpose of making an investigation of the weighing conditions. The situation was given this committee's careful consideration, and they reported that the weighing conditions were found to be very unsatisfactory. The weighing of grain

at that time was nominally under the supervision of the state board. Such supervision as existed was performed in a perfunctory manner, which was entirely unsatisfactory, both to the shipper and the receiver, and, in fact, was equivalent to no supervision at all. The committee also made visits to Kansas City, Chicago and other large markets, where board of trade weighing was in vogue, and reported that, in order to remedy the evils with which weighing at St. Louis was attended, it would be necessary to establish a department of weights, under the supervision of which all grain consigned to this market would be weighed. Acting upon the recommendation of this committee, the Exchange, by almost an unanimous vote of its members, decided to inaugurate a system of board of trade weights.

The Exchange accordingly appropriated \$10,000 for the purpose of establishing the Department of Weights. A chief weighmaster and eight deputies were employed. This number has been increased from time to time, and there are now thirty-six deputies—twenty of these deputies are maintained by the Exchange to supervise the weighing of hay and grain at St. Louis, while the state maintains but eight deputies to perform the same service. That the force of deputies employed by the state board is entirely inadequate to make even a pretense of supervising the weighing of hay and grain unloaded in this market is a statement too evident for its denial to receive serious consideration from anyone who is interested in securing proper supervision.

The scales at all terminal elevators are at the top of the elevators and when a great many cars are unloaded it is impossible for one man to perform all the duties which proper supervision requires. The Department of Weights has at all times sufficient number of men to enable it to station two men at such places. One of these men is stationed upstairs to see that all the grain that is run to the scale is accurately weighed, and the other one remains downstairs to examine the cars upon arrival, secure complete record of the seals, see that all cars are well cleaned out, and that all the grain goes into the scale. The department also has a chief deputy, who makes daily visits to the elevators to see that the men are properly performing their duties for which they are employed.

The so-called supervision which the state board is now exercising over the weighing at the team tracks is of a mythical character, and has not even the negative virtue of being of doubtful value and is, as a matter of fact, no supervision at all. The weigher, who is recognized by the state board as a deputy, must depend on the parties who haul hay or grain to inform him from what car such hay or grain was taken, and as to whether or not the car is empty. The scales are located at such a distance from the track that it is impossible for the weigher to even see the car upon which a certificate is issued, which fact precludes the possibility of his being able to possess any information as to the seal records or condition of the car on arrival.

One of the main features where the Merchants' Exchange Weighing Department excels the system now in force by the state is that in large public elevators the Merchants' Exchange employs two supervisors, whereas the state only employs one at the scale, who supervises the weighing, the same as our supervisor; but the Exchange employs another one at the bottom of the elevator, where the car is unloaded, whose duty it is to ascertain the condition of the car on arrival at the elevator, and note if it is leaking, or there is any evidence of a leak en route; also to see that the car is properly cleaned out and that all the wheat is run into the scale before it is weighed; the state has no man to look after this.

Still another feature which the Merchants' Exchange Weighing Department has, which the state has not, is a watchman at all team tracks, where

grain is unloaded by various mills and feed store men, whose duty it is to also ascertain the condition of the car on arrival at team tracks, and see that the cars are properly closed and sealed at night, if not empty; that all the grain is hauled out, and that none is stolen from the car while being unloaded. Before the department adopted this watchman system there were complaints made of grain being taken from cars by sack and in other ways, and this has done away with that trouble.

The department is doing everything in its power to perfect the system of weighing in St. Louis, and the weights furnished by the Merchants' Exchange Weighing Department now are generally satisfactory. The department is wide awake, and improvements are being made in the system wherever possible.

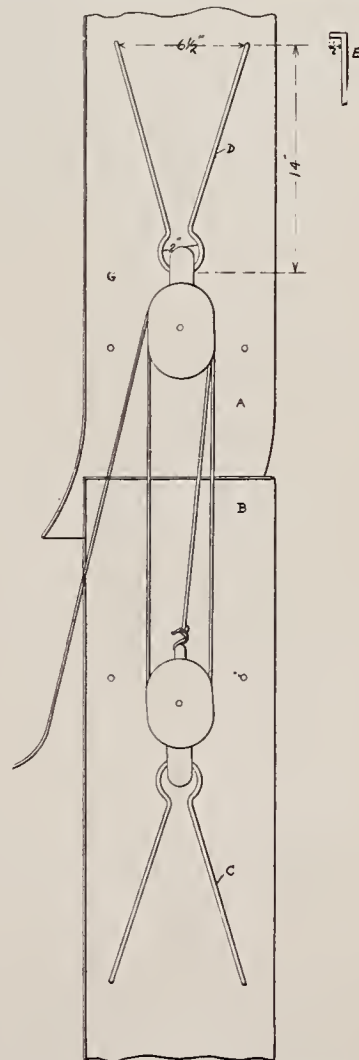
A personal tour of investigation of the situation and workings of the two sets of weighers, would thoroughly satisfy any disinterested observer of the relative merits of the two systems in respect to the character of the service rendered.

[From the "American Miller."]

**TIGHTENER FOR ELEVATOR
 BELTS.**

BY J. L. COVENTRY.

The accompanying sketch shows a tightener for elevator belts. A and B represent upper and lower ends of elevator belt. C and D are hooks made of 5-16-inch spring steel, bent in round ring 2 inches in diameter, to receive lug of awning pulley; ½-inch hook at top to hook in cup



bolt holes, from which cup has been removed. The hook is shown at E. The pulleys are common awning pulleys, one double and one single. As it is impossible to get an awning pulley with becket, F, a screw-eye can be tapped into the end of the single block. A common sash cord is the best and strong enough to bend any head shaft. To hold the belt after it has been tightened, and while the splice bolts are being put in, pass the pall or pulling end through under the other strand, as per dotted line, G, and pull it up tight against the pulley. No other knot is necessary. The spring steel hooks are readily adjustable to any width of belt.

THE NEBRASKA DEMURRER.

Attorney-General Norris Brown of Nebraska is said to be in danger of being swept by the farmers into the United States Senate on the strength of the late decision of the Nebraska Supreme Court on the demurrer in the so-called "grain trust" case, referred to briefly in these columns a month ago, when the demurrer to the petition for an injunction against the Omaha Elevator Co. and many other defendants was overruled. The syllabus, or gist of that decision, was as follows, referring mainly to the anti-trust laws of Nebraska:

1. All statutes upon the same general subject are to be regarded as part of one system, and later statutes are to be considered as supplementary or complementary to those preceding them upon the same subject.

2. Statutes in pari materia should be construed together.

3. Repeals by implication are not favored. Where the legislature has passed two statutes upon the same subject, the later covering the entire matter embraced in the first, and also additional provisions, the later act supersedes the first and repeals the first by implication. But if the later statute does not cover the entire field of the first, and fails to embrace within its terms a material portion of the first, it will not repeal so much of the first as is not included within its scope, but the two will be construed together so far as the first still stands.

4. Rule applied, and held that the anti-trust act of 1897, known as the Gondring act, was repealed by implication by the anti-trust act of 1905, known as the Junkin act, except as to the first section thereof defining "trusts."

5. Unless it appears from its terms that an act applying to a certain class of persons is meant to cover all inhibitions and regulations affecting them, a later general act applying to all persons and prohibiting in general terms the acts specified in the former act, as well as a number of other acts and purposes, defining new crimes and prescribing new penalties, and giving new civil remedies, will not be held to except the persons embraced in the former act from the operation of the latter.

6. Rule applied, and held that the acts of 1887 and 1897 prohibiting combinations by grain dealers and others to fix the price of grain, etc., do not except such dealers from the operation of the later general anti-trust acts of 1897 and 1905, applying to all illegal combinations to fix prices, etc.

This decision is not by any means final. It goes to the pleadings only, leaving the real merits of the controversy unadjusted except so far as the pleadings cover that point. The decision having declared the anti-trust statutes of the state valid, the defendants may elect to abide by that ruling or proceed to deny that they are affected by the anti-trust law and compel the state to demonstrate by a trial that they form a combination of the nature of a trust. The Nye-Schneider-Fowler and other companies have elected to go to trial. The Nye-Schneider-Fowler, the Holmquist Grain, the Crowell Grain and Lumber and the Duff Grain Companies have all filed answers to the bill, denying generally the violation of the anti-trust law by acts of omission or commission. The Duff Company also answers that it was not a member of the Nebraska Association at the time the action was commenced; and also that the petition

"presents a federal question, involving the construction of a provision of the constitution of the United States of America. The action is commenced as one in equity and founded upon an act taking effect July 1, 1905. The petition charges various acts and transactions as occurring prior to that date. It seeks to have the act of 1905, with all its provisions, remedies, penalties and forfeitures, including the very right to bring the action itself, applied to the acts and transactions charged as occurring previous to the enactment and previous to the taking effect of the said new law of 1905. Such a course is a violation of the federal constitution, which prohibits any ex post facto law."

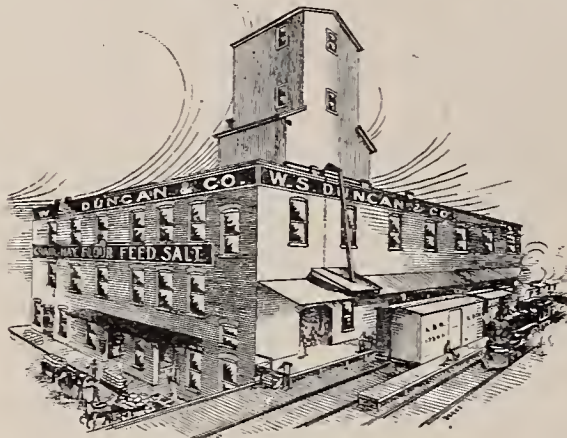
The Nye-Schneider-Fowler Co. attacks the act involved, saying in substance:

"The law of 1887 is strictly a criminal law, to be enforced only by criminal procedure, except that an injured party may recover his damages by civil action. The state claims this law was

violated. It then passes a new law, increasing the damages threefold; multiplying the fine by five; adding a provision for a forfeiture of trust property; adding a provision for forfeiture of corporate charters; adding a provision requiring defendants to testify against themselves; providing for both criminal and civil procedure. Under this law the state proceeds by the civil branch provided, to enjoin; to confiscate the trust property; to forfeit the corporate charters; to recover costs; and for a decree 'that the defendants, each and all of them, be adjudged guilty of the acts complained of,' and all this based on acts charged as occurring before the penalties and remedies are provided. This is clearly 'altering the situation of the party to his disadvantage.'"

ELEVATOR AT ATLANTA.

The only elevator at Atlanta, Ga., is that owned and operated by W. S. Duncan & Co., 18 to 24 Butler Street, where that thoroughfare is crossed by the line of the Georgia Railroad. The plant is about two years old, and consists of a grain elevator, with space and conveniences for handling hay, feed, flour, etc. The building is 106x135 feet in size and three stories high, the tracks of three railroads being on a level with the floor of the second story, to wit, those of the Georgia, Louisville & Nashville and Atlanta & West Point



W. S. DUNCAN & CO.'S PREMISES AT ATLANTA, GA. roads. The private siding of the firm is sufficient to handle six cars at a time.

The first floor of the building is devoted to shipping, chutes being used to lower the goods for shipment after they have been sacked on the floor above. On the second floor, which is devoted to sacking, there is an automatic sacking machine which is fed from the bins, with capacity of six sacks of grain per minute. It is so arranged, however, that by increasing the number of men handling the sacks a continuous stream of grain can be taken care of. The use of this machine not only facilitates and hastens sacking, but the automatic scale insures exact weight to all sacks filled by the machine.

The third floor is used as stock room for flour, meal, salt and feed of all kinds, as well as choice lots of white, yellow and mixed corn, fancy clipped white oats, etc. The plant is also equipped with ample cleaning machines for grain, the dust of which is removed by dust collectors.

Grain is unloaded from the cars into the hopper of the elevator scale (44,000 pounds' capacity), which after weighing is dumped into the sink beneath and then elevated for cleaning and distribution to one or more of the fan bins, on removal from which it is sacked or loaded in bulk into cars for reshipment. The power is distributed by electric motors.

The firm of W. S. Duncan & Co. was organized by W. S. Duncan, and has been doing business in Atlanta for upward of a quarter of a century. The business was first begun on Whitehall Street, and later its success was continued on Alabama street, from which it was removed to the present location. The firm is now composed of W. S. Duncan, A. W. Hodnett, J. L. Duncan and E. H. Waldrop.

Representatives of 125,000 Iowa farmers interested in co-operative elevators, have appealed to the House committee on agriculture to recommend the passage in Iowa of the Powers Re-

ciprocal Demurrage Bill, which will compel the railroads to furnish freight cars to handle the grain of the producers who patronize co-operative elevators.

THE PEAVEY FIRE AT DULUTH.

The destruction of the working house (wooden) of the Globe Elevator (Peavey elevator system) at Duluth has at least one redeeming feature: It has demonstrated, by a crucial test, the fire-resisting quality of the concrete tank, both as a structure and as a receptacle for grain. The plant consisted of the "crib," or working house, and a series of thirty-five circular bins, with a capacity of over 4,000,000 bushels. These bins rise to the height of 108 feet, and are of reinforced concrete; that is, they have steel frames, completely covered with concrete. Six of these bins directly faced the crib, which itself had a capacity of 1,250,000 bushels and was destroyed. Although the heat of the fire was so great that it is said glass was broken by it half a mile distant across the bay, nevertheless, of the bins immediately facing the fire, the concrete, it is said, is not even blackened with smoke, the heat having been so great that the smoke was burned off. On first examination it was decided that there was not the slightest sign of cracking in any part of the concrete walls, although they had been examined carefully; while the steel framework was so well covered with concrete that it did not get a chance to become sufficiently hot to expand and do any damage. Later, however, it appears that one bin, not most directly exposed to the fire, shows a crack two inches wide and several feet long. Nor was the grain within the bins in the least damaged.

The elevator in question, located on Rice's Point, Duluth, was one of the most famous elevators at the head of the lakes. It was built in 1901 by the Barnett & Record Co., and complied with all of the specifications of the Underwriters' Association. It had 19 stands of elevating legs—five receiving and five clearing, with loft capacity of 8,000 bushels each; five shippers of 12,000 bushels' capacity each; two screenings legs of 2,000 bushels' capacity each; and two flax legs of 3,000 bushels' capacity each. This immense loft capacity was accompanied by proportionate cleaner capacity and plenty of room on the working floors for handling so large an amount of grain, every detail of the planning of the house having in view a continuous flow of grain through the house under all conditions. The elevator, therefore, was able to unload, clean and load on shipboard 200 cars of grain in a ten-hour day, and had storage room for 1,250,000 bushels of grain.

The concrete annex consisted of thirty-five concrete bins, each 33½ feet in diameter and 108 feet high, giving a bin capacity of 80,000 bushels each, and some 20 or more intermediate bins, made by connecting the circular bins with a wall, each having 70,000 bushels' capacity, giving a total storage capacity for the annex of nearly 4,500,000 bushels. To this annex the grain belt conveyors would deliver grain at the rate of 60,000 bushels per hour, while five belts took it out at the rate of 75,000 bushels per hour. The annex was built by C. F. Haglin of Minneapolis.

The fire was first discovered about 7:15 in the evening, bursting from the cupola, and it spread so rapidly that fifteen minutes later the great building was a mass of flame. The house had been shut down about 2 o'clock p. m. and no one was in it but the watchmen, who could give no explanation as to the origin of the fire. The fire apparatus in the building (sprinkler system and 1,000-gallon fire pump of underwriters' type) were put into action.

When the elevator was shut down on February 17, every bin in the working house was full of wheat, as were many of the concrete bins, the records of the Duluth Board of Trade showing that there were in storage, of wheat 2,528,706

bushels, of oats 173,627 bushels, of barley 114 bushels, of rye 63,842 bushels, and of flax 690,137 bushels.

The insurance was \$275,000 on the building (cost \$350,000) and \$649,500 on the grain in store. The additional loss to the Globe Elevator Company will be the loss of the use of the working house, with the problem of moving the grain from the concrete bins. To handle the grain a temporary house will be erected, to be used as a shipper to load the grain out of the annex, and then a new elevator will be erected entirely of fireproof material.

The salvage expected from the grain was \$100,000, but the bids did not reach that sum by considerable, and the stuff did not sell very readily at underwriters' prices, although bidders were plenty and had come from long distances to be present on February 21, when the sale was to have been made. On February 27, however, McGuire & Atwood, Duluth, began moving the salvage grain for the underwriters through the Republic Elevator at Superior.

THE HEPBURN BILL.

In the confusion of tongues which has arisen in Washington over a single feature of the "Hepburn bill," the one feature about which the opposition has chiefly concentrated, there is some danger that the general public will lose the sense of perspective essential to an intelligent understanding of the legislative struggle in the Senate. Although this feature, which concerns the fixing of railway rates, is a vital one in the measure, it is only a part of what it aims to accomplish. Hence there is some haziness in the popular mind as to what the bill really provides and as to the issues on which its friends and foes are divided.

The pending bill is no more than a measure to amend the so-called "Interstate Commerce act" of 1887. It enlarges the powers of the Commission in several particulars, and were the provisions concerning the regulation of rates omitted, it is conceivable that it would go a long way toward the correction of railway abuses and evils of which the commercial portion of the community complains. It is aimed at the rebates and special privileges, through switches and cars owned by shippers, by which unfair discriminations are practiced. For instance, by enlarging the legal or statutory definition of common carriers the bill puts it in the power of the commission to establish through routes and through rates. This would be meaningless to the man unfamiliar with the fact that the denial of through routes and through rates is a common device of railroads to crush competition, with the favored shipper enjoying special facilities.

Another section of the bill puts refrigerating and other like charges under the control of the Commission, to prevent discrimination under the cover of these devices, while another requires so long a public notice of changes in tariff rates as to make impossible the "midnight tariffs" which have been a flagrant method of discrimination. Then the bill imposes a heavy penalty for the disregard of the lawful orders of the Commission; and it also requires uniformity in accounts and reports from the railroads as a precaution against the secret granting of rebates, and incidentally as an assistance to the Commission in the preparation of its statistical reports.

As to these matters, important though they are, there is substantial agreement; but when we come to the vital sections of the bill the tangle of misunderstandings and antagonisms deepens, and it is almost as necessary to explain what the bill as passed by the House does not contain as to define its exact provisions. The great complaint of the existing law has been that, while the Interstate Commerce Commission is empowered to declare a rate unjust or unreasonable, it is unable to say what rate would be just and reasonable. It is to cure this impotency that the Hepburn bill has been drawn; and the contest

which is raging is not so much against the correction of the defect as against the manner of doing it.

Now the Hepburn bill simply provides that where complaint is made against a railway rate the Commission shall, after full inquiry, in case it finds the rate unjust or unreasonable, or unduly preferential or prejudicial, "determine and prescribe what will, in its judgment, be the just and reasonable and fairly remunerative rates to be hereafter observed in such case as the maximum to be charged." These rates shall go into effect after thirty days' notice and remain in effect during the term of three years. A similar provision is made for the promulgation by the Commission of regulations and practices in respect to transportation which must be obeyed by the railways, and the bill requires the United States courts to enforce the orders of the Commission when regularly made and served.

The latter provision is the only reference in the Hepburn bill to the courts, it being assumed that the railways will have the same access to the courts as in the past for the correction of errors or the protection of rights. The critics of this feature of the measure insist that it should contain a specific provision for a judicial review of the findings of the Commission, their contention proceeding from the assumption either that the courts under their general powers might throw out the entire rate-regulating provisions of the act, or that the courts, without specific legislation, would be powerless to prevent the enforcement by the Commission of a rate which might be unreasonable though constitutional.

Over and above the distinctions raised by these advocates of a special court review provision is the objection to the enforcement of the maximum rates to be fixed by the Commission pending the action of the courts in case of appeal. It is inconceivable that the matter could be kept out of the courts in any event, and the difficulty thus raised is a very real one. The alternative to the method of the Hepburn bill is, of course, the suspension of the orders of the Commission pending judicial review. In the latter case, with our knowledge of the ability of the railways to prolong litigation, the shippers would be the sufferers, and the hope of relief from this process would be remote. On the other hand, in the event of the imposition of a rate found by the courts to be not "just, reasonable and fairly remunerative," the railways would find it difficult to obtain redress from the shippers, secure for many months in the enjoyment of the lower rate. It is on this intricate and troublesome issue that the main battle rages, and it may be taken for granted that the enemies of any form of control by the government will take advantage of the divisions among the friends of rate regulation to increase the complications.

ILLINOIS ASSOCIATION.

The following resolution was adopted by the board of directors of the Illinois Grain Dealers' Association at a meeting held at Peoria on February 27, 1906:

Whereas, we, the directors of the Illinois Grain Dealers' Association, believe in the principles of association work, local, state and national; be it

Resolved, That the directors of the Illinois Grain Dealers' Association co-operate with the Grain Dealers' National Association, in furthering the interests of the grain trade; and be it further

Resolved, That we recommend that the members of the Illinois Grain Dealers' Association lend their moral and financial influence to the Grain Dealers' National Association and avail themselves of the benefits of the National, by becoming direct members, according to the plan recently adopted by the directory of the National.

The directors also decided to hold the next annual meeting of this Association at Peoria on June 12 and 13.

The Department of Agriculture of the University of Minnesota, has issued a bulletin in regard to

the good results to be obtained from judicious seed selection. It is laid down as a reasonable expectation, that from two to ten bushels per acre will be added to the harvest. In experiments carried through two years, the average gain in favor of selecting heavy seed, was 46 bushels.

LOUIS E. MANN.

Louis E. Mann of Osmond, Neb., has thrice followed Mr. Greeley's advice to young men to "Go West." When the force of this advice first impressed itself on his mind, he resided at Walcott, Iowa, and had arrived at the mature age of seventeen; so he "pulled out" and joined his brother George, who had reached the very mature age of twenty years, in the hardware, furniture and implement business at Pierson, at the other side of Iowa from Walcott. They continued in business at Pierson for several years.



LOUIS E. MANN'S ELEVATOR AT OSMOND, NEB.

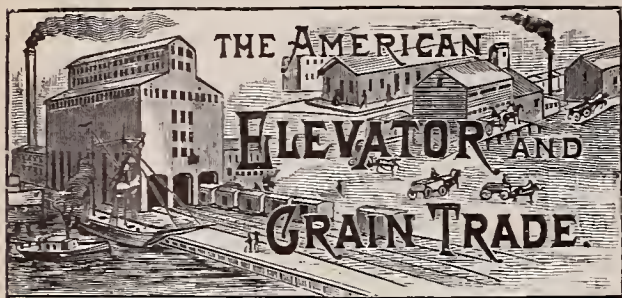
or until Louis Mann sold out to George. The former, after a trial of the road, finally drifted into the grain business, and in 1900 accepted the offer of the Peavey Elevator Co. to take charge of its station at Randolph, Neb. On going to Randolph he bought 120 acres of land, which during the five years he worked for the Peavey Company he increased to 400 acres, which he still owns.

Six months ago he bought the elevators at Osmond and McLane, Neb., of C. O. Shannon, and on removing his family to Osmond began to handle flour and feed as well as deal in grain. The elevator at Osmond especially he has improved materially since taking possession, having put in a Fairbanks Dump Scale and enlarged the spouting and made several hundred dollars' worth of other improvements.

SOUTHEASTERN KANSAS ASSOCIATION.

A meeting of the Southeastern Kansas Grain Dealers' Association was held in Fort Scott, Kan., on March 1. A good number of the members were present and a very interesting meeting held. E. J. Smiley, secretary of the state association, was present and made a speech which was full of good advice and demonstrated the superior knowledge and experience of the speaker. The Association is composed of grain dealers of the southeastern portion of the state, a territory that had been given up as unorganizable. Mr. Smiley in his speech complimented the officers and members on their work in organizing an Association that has made the showing it has in the past year.

Texas millers are good buyers of Oklahoma and Kansas wheat, the state being bare of natives.



PUBLISHED ON THE FIFTEENTH OF EACH MONTH BY

MITCHELL BROS. COMPANY

(INCORPORATED.)

OFFICE:

Manhattan Building, 315 Dearborn Street,
CHICAGO, ILL.

HARLEY B. MITCHELL.....Editor
A. J. MITCHELL.....Business Manager

Subscription Price, - - - \$1.00 per Year
English and Foreign Subscription, - 1.60 " "

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., MARCH 15, 1906.

Official Paper of the Illinois Grain Dealers' Association.

THE HEPBURN BILL.

The very dramatic manner in which Senators Aldrich and Lodge washed their hands of the Hepburn bill, after their unanticipated failure to kill or mutilate it in committee, by placing its management through the Senate in the hands of him whom they might personally characterize as the "unspeakable Tillman," the "wild man" of the Senate, has by no means brought the bill into that contempt, even with Republicans, which those supercilious snobs, politically speaking, anticipated. The bill is still the President's and the people's bill; and no sharp practice designed to overload the bill with politics, by senators none too well thought of by the public, will suffice to rob it of its vast importance as an economic measure. They have simply given Mr. Tillman a great and wholly unexpected opportunity to rise to greatness—if it is in him.

Whatever may be said of the weaknesses of the bill, which are yet to be established as such, its conceded strong points are enough to warrant its passage. It is something that there shall be new definitions of "common carrier" and "railroad" adequate to cover present conditions; that the rebate and the "midnight tariff" shall be abolished, and that the real grievances of shippers shall be recognized in the statutes in a form demanded by the shipping public.

It may be too much to hope that the Hepburn bill will be legally decisive of transportation problems; but it will be a wedge—it is a groping toward an ultimate statute that one day will in fact abolish the "collusive and corrupt rebate" and all those other clever devices to defeat the controlling power of the

Commerce Commission, the only body thus far devised that has shown a disposition to give shippers the "square deal." It is either the Hepburn bill now or something more drastic hereafter, for transportation reform is bound to come.

H. R. BILL 15846.

The bill in Congress numbered H. R. 15846, otherwise known as the Bill of Lading Act, is one of supreme importance to all shippers using order bills. Introduced by Mr. Townsend at the instance of the American Bankers' Association, and now in the hands of the committee on commerce, the bill aims to correct the variations in (or total absence of) state laws on negotiable bills of lading by substituting a federal law making all "order bills" negotiable and defining the respective rights, duties and obligations of the several parties thereto. It being estimated that more than 2,500 million dollars are advanced annually by banks on such documents, the importance generally and specifically of such a law can hardly be overestimated.

Order bills are so well understood by the grain and hay trades, it is unnecessary to say anything of their general purport here. Although they are and long have been in universal use, their general character, legally speaking, is still far from having been established; and to this uncertainty as to their legal status is now added the effort of the carriers to abolish their use entirely, both of which conditions would at once cease were this bill to become a law.

In view of recent losses by banks and others through forgeries of order bills printed, executed and issued in the slovenly manner now commonly obtaining, and the attitude of the carriers to them, the banks, being willing enough to co-operate with shippers, as indeed their business demands they should, in their universal use, yet insist that the legal status of the bills shall be at once and definitely established. The bill, in the banks' interest, would also relieve them of the responsibility, as owner, of guaranteeing the quality and quantity of the commodities represented by the bills, which recently has been fastened on them by the courts. This latter relief is entirely proper, as shippers will, on second thought, concede, especially since its continuance naturally threatens the continued free and voluntary handling of bills by the banks—certainly of bills of the present heterogeneous character.

THE C. & O. COAL DECISION.

The decision of the United States Supreme Court in the C. & O. Ry. Co. case, filed on February 19, is decisive of three important points: (1) That "corporations deriving their existence from the hands of the people must submit to regulation by the people;" (2) that railway corporations may not cut the rate by resort to subterfuges, and (3) that common carriers may not also be dealers in commodities.

The facts in the case were very simple. The

C. & O. contracted with the N. Y., N. H. & H. R. R. to deliver to the latter in Connecticut 60,000 tons of coal from the Kanawha district of West Virginia, at a price which, deducting the price of the coal at the mines and the cost of carriage from Newport News by water to Connecticut, would leave the C. & O. but 28 cents a ton for a haul, the published tariff for which was \$1.45 per ton. To avoid a conviction before the Commerce Commission for secretly cutting the rate, the C. & O. pleaded, as dealers therein, a loss on the coal. But the court, following American authorities, such as the Munn case, and especially the English precedent of Attorney-General vs. The Great Northern Railway, presenting an exactly similar state of facts, held it incompatible with its duties as a carrier and fraught with injury to the public for the railway company to be engaged in any other business than that of common carriers.

ARE THE CASES ANALOGOUS?

As an astute commentator on the C. & O. coal case has said, "it is always perilous in interpreting the decision of a court to make applications of the principle involved other than those made by the court itself;" but analogies are always tempting because interesting. The court does not say the C. & O. might not have been chartered to mine and sell coal; but as it was not, that privilege cannot be inferred. So, too, the late Judge Tuley, in his decision in the public elevators case, held that companies operating public grain elevators are not empowered under their licenses to act privately as dealers in grain in the same houses and for the same reason: that it is contrary to public policy. The argument in the two cases is exactly similar, and in both the prohibition of the assumed privilege was based on the reasoning in Attorney-General vs. Great Northern Railway Co., to wit, that, "The existence of such a power would enable the carrier, if it chose to do so, to select the favored persons from whom it would buy and the favored persons to whom it would sell, thus giving such persons an advantage over every other and leading to a monopolizing in the hands of such persons of all the products as to which the carrier chose to deal."

Now this is just what in another way the present public elevator system does in the grain business. The public elevator companies of Illinois have not as such dealt in grain in their own houses since the Tuley decision was affirmed; but the same men comply with the letter of the law by forming other corporations, and by keeping a double set of books act as operators of Class A elevators and also as dealers in grain in the same houses. In other states even this thin subterfuge is not resorted to. But is this subterfuge a legally justifiable evasion of the Illinois law governing the management of Class A houses? The ruling in the Munn case, that "public policy would forbid the transaction of a warehouse business by a common carrier," having forced the warehouse

business into private hands for the protection of the public from the graft of the railway companies, is a mere fiction of the corporation law now able to defeat the end sought by that decision and by the state constitution by giving the privileges denied the railroads to the elevator men? The law aimed to create a system of "public" elevators that should under no circumstances merge the identity of the grain of the public in that of private individuals, operators of public elevators, by mixing and storing their own grain with that of their customers in Class A houses. Can this advantage still be had, as some complain, by indirection? And does the C. & O. decision have any bearing on such a state of facts,—or on the "elevator allowance" subterfuge?

DISINGENUOUS.

The resolution apropos the National Association, adopted by the directory of the Illinois Association at Peoria, reminds one of Artemas Ward's ancient joke about his willingness to sacrifice all his wife's relations on the altar of his country. The directors dote on "association work," but, although authorized by the Illinois Association in general meeting, in June, 1905, to act in matter of resuming affiliation with the National, they now recommend to the Illinois dealers that they "avail themselves of the benefits of the National by becoming direct members" at \$3 each, instead of giving them those same benefits at a cost of only \$1 each by resuming affiliation.

Isn't the directory just a bit disingenuous? The National is or is not a good thing. If it is the directors should act upon their "power to act" and draw upon the members for \$1 each for the National dues with their other dues; or it should say, as did Mr. Beggs of the directory at Decatur in June, 1904, discussing this very question, that they "don't see any good in it anyway," and be done with the whole matter.

THE CONCRETE BIN.

Once more the wooden elevator, designed to meet every requirement of the underwriters to prevent its own destruction by fire, has fallen a victim, apparently from an unknown cause. Shut down early in the day, to all appearances in a normal condition, within eight hours the Globe Elevator of Duluth was in ruins. But the concrete annex, built at a time when concrete grain bins were an experiment, seems to have fully justified itself. That one of its several bins, exposed to terrific heat, should have developed a crack, apparently by no means serious in character, does not impugn the essentially fireproof nature of concrete as a building material. The superheated walls of a fireproof tile tank, suddenly dashed with water, might develop a similar crack without affecting the integrity of the structure as a fireproof receptacle for grain.

The Globe Elevator fire was perhaps the most complete fire test the concrete grain tank has ever had; and the result is that a new material has been added to the list of conceded fireproof materials available for elevator con-

struction. And the importance of this test is the greater as the present reasonable price for Portland cement puts concrete within the reach of builders of all types of grain elevators and storage structures.

THE UNIFORM BILL AGAIN.

It is now about nine months since the joint committee of shippers and carriers began their negotiations for a settlement of the vexed question of the uniform bill of lading, for more than two years past a menace to shippers. In these nine months practically no progress has been made toward a settlement. After the agitation begun in 1904 had reached a climax in the hearing of the shippers' complaints by the Commerce Commission at Chicago late in 1904, the carriers promised the shippers' counsel and the Commerce Commission to abandon the use of the uniform bill until a settlement should be agreed upon by the joint committee named, which had its first meeting at Buffalo in June last. But the carriers have not lived up to their solemn pledges in this respect. Pleading that they had printed some 50,000,000 copies of this new uniform bill, they have been forcing this bill upon shippers—not generally requiring shippers to sign the bill, but doing so wherever a country shipper (who "doesn't have time to read the trade papers" and doesn't know all that is going on in the world) is found simple enough to waive his right of recovery for loss and damage in transit without proper consideration.

This kind of shuffling on the part of the carriers, as well as the attitude of their representatives on the joint committee, had made it evident to the shippers' representatives on that committee that the carriers had no intention of coming to an agreement with the shippers, even before the meeting of the committee at Chicago on March 8, when the carriers not only demanded that the bill should be not negotiable, but insisted upon incorporating the clause in the proposed bill which would relieve the carrier from common law liability for loss and damage, a feature which alone involves many millions of dollars; and they insisted further that the initial line shall not be held responsible for loss and damage which may result in transit over connecting lines. They very graciously professed their willingness at all times to give shippers all possible information regarding shipments on which claims should be made so the shipper may determine which carrier is responsible for the loss; but they would draw the line at that.

It is needless to say no agreement was reached by the committee, which adjourned for a period not exceeding twenty days, the cause of the split, according to the newspapers, being the question "of freedom from liability on the part of the railroads in case of riots." That explanation will perhaps answer; but the fact is the uniform bill of lading problem is still an acute menace to the grain trade, and those interested in its conduct must not for a moment forget that fact.

Applications for direct memberships in the National Association from unaffiliated terri-

tory are very encouraging both in number and in temper.

FREE GRAIN ALCOHOL.

Unexpected interest has been created in the bill for free denaturized grain alcohol, now before Congress, by the hearings of the ways and means committee, and it is believed that by the co-operation of all those directly and indirectly interested in the bill it may be passed at this session. It must be borne in mind that the real opposition to the bill comes quite as much, if not more strongly, from the wood alcohol interests than from the Standard Oil crowd. As to the former particularly, the matter is reduced to the question whether it is good public policy to protect one industry, as Mr. Pierce (see page 476) thinks it ought to be guarded, by a tax that is a burden on many other industries and whose removal would benefit directly and indirectly many times the number of people Mr. Pierce says would be adversely affected by the alleged annihilation of the wood alcohol distilleries by giving the public free grain alcohol. In this country, in theory at least, the greater interest should and does govern legislative action when not dominated by "pulls."

WASTEFULNESS.

The past fall and winter's handling of new corn has been more than commonly disastrous to dealers, and if the end of losses by corn going bad is even now come, the trade may consider itself fortunate. The season has added new force to "Jim" Hill's recent remarks on our American habits of wastefulness and extravagance; for the procedure with new corn by farmers and country dealers alike has shown that this habit which elicited Mr. Hill's concern, as he saw in his mind's eye the passing of our iron ore mines and the wanton and wicked destruction of our magnificent forests, has invaded also the farming element of the nation—all eager to get money.

A good and beneficent Providence last year gave the farmers an immense crop of grain of all kinds; but instead of garnering and housing this flood of God's bounty, so that it might be properly cured for preservation against the day of its consumption, a large proportion of it (just how large it would both interesting and valuable to know) has been wantonly wasted by spoilage during the first three or four months after harvest by neglect and imperfect methods and haste to handle grain not in fit condition to be handled. All through the corn and oats country may be found cribs and granaries of the crudest sort—corn cribs without roofs and oats recklessly dumped into barns and outhouses of any sort, where they could not possibly escape becoming discolored, moldy and musty, simply for a chance to feel God's fresh air and sunlight.

To what extent country dealers encourage this sort of waste by urging shipments before grain is in condition to ship and by paying too high prices for grain out of condition at any season, they must answer to their own consciences and their pockets.

Editorial Mention.

The annual convention of the National Association will be held at Chicago on June 4 and 5.

Drumming trade by making pessimistic speeches to farmers is a new idea in grain; but some people seem to make it go.

The annual meeting of the Grain Dealers' Union of Iowa and Missouri will be held at the Hotel Johnson, Red Oak, Iowa, on March 28 at 2 p. m.

The Farmers' Grain Dealers' Association of Illinois is in session at Peoria to-day, and some oratorical red fire is sure to be burned when the "grain combine" is alluded to.

A bill that has the support of the Ohio Shippers' Association is now before the Ohio legislature to create a state board of railroad commissioners, with the usual powers of such bodies.

Lessees of all the railroad elevators in New Orleans assure local dealers that there will be no discrimination against them: but as New Orleans has no public elevator at all the local men have reason to complain that the railroads are hardly treating them fairly.

Germany having suspended action as against the United States of the maximum clause in her new tariff bill for sixteen months, it is up to us to negotiate in the meantime a commercial treaty with the Empire that shall guarantee a continuance of this favor.

The value of good water barrels and fire buckets in grain elevators is shown by the report of the Grain Dealers' National, which reports that no less than six fires in 1905, in risks insured by that company, were extinguished by their use, with only nominal loss in each case.

The old-line insurance companies are again in mourning on account of the "million-dollar fire" at Duluth, following close on the heels of the record of 1905 with heavy elevator losses at Kansas City, Chicago, Joliet, East St. Louis and elsewhere. No wonder: for, aside from the immediate loss, as a rule the houses that take their places will be fire-proof and will carry little or no insurance.

Senator Lodge demonstrates to his own satisfaction that since there is an "alleged combination of English, German and French ship owners for the purpose of putting up rates on our export grain," ergo, we must make another combination of the American ship owners and pay them a subsidy. Of course it wouldn't do for Mr. Lodge to advocate a revision of our navigation laws, now over a hundred years old and obsolete sixty years ago; nor would it suit his purpose to pay the subsidy to the grain and merchandise exported. Oh, no; of course not. Some of

the teats of the public treasury might slip into producers' mouths at that rate. That would never do.

It is somewhat difficult to prove actual damage in cases of carriers' discriminations: but the telegraph says that at Sandusky, Ohio, John Wren, a grain man, managed to prove up \$2,000 against the T. & O. C. as his losses for three months when no cars were furnished him, and got a judgment against the road for that amount.

In Bartholomew County, Indiana, they had some time ago one of those Society of Equity branches, who swallowed, bait, hook and line, the Everetian doctrine of hold-your-wheat. They held for \$1.50, and sold out at last at 75 cents, after offers of \$1.15 had been scorned. The local branch has since "done gone busted."

In their enthusiasm over the Nebraska Supreme Court decision on the "grain trust" demurrer, the co-operative farmers of Kansas now threaten to send Attorney-General Brown to the United States Senate. Had not the "embattled farmers" better wait until the case is finally disposed of? Their hero may yet turn out but a mere man with a tin sword.

The Illinois State Highway Commission has organized at Springfield, and promises to be a valuable adjunct to the township commissions controlling road making. Grain dealers being interested in the highways should put themselves in touch with the Commission and unite their influence with that of the Commission to stop some of the waste now going on through ignorant and inadequate methods.

The McCaull-Webster Elevator Co. of Minneapolis at least lives up to the doctrine of the able chairman of the grain improvement committee of the National Association, and this season has, at its own expense, distributed many copies of a circular on seed grain of especial value to all farmers who will take its advice. This example is worthy of wider imitation by grain dealers, even in the country cevered, as was that of the McCaull-Webster Co., by the good seed specials' lecturers.

The House committee on agriculture has cut out of the appropriation bill the item of \$250,000 to buy seeds for the annual free distribution. This is the committee's response to the demands of granges, farmers' institutes and associations and individuals innumerable for an end to this miserable farce, and it is to be hoped this will end it. However, some years ago the late J. Sterling Morton, the then Secretary of Agriculture, tried to kill in a similar way the then annual graft of but \$100,000; but Morton was an avowed and uncompromising holier-than-the-rest-of-the-gang reformer; and Mr. Tillman and others in the Senate who disliked that sort of smug piety replied to him by forcing an appropriation of \$200,000, which has little by little grown

bigger every year. The present committee may be more popular (or less hated) than was the capable and common-sense Morton, and so have their way. But the seed appropriation cannot be said to be dead to stay until an appropriation bill without it carries the presidential signature.

One mean amendment to the Hepburn bill in the senate is that providing that no two members of the Commerce Commission shall come from the same judicial district. This, if adopted, will unseat either Knapp of Syracuse, N. Y., or Prouty of Vermont, both of whom as members of the Commission are particularly offensive to the carriers. Mr. Prouty has been the backbone of the whole struggle for rate regulation and has made himself a source of worry to the opponents of the proposition, while Knapp is hardly less useful to the public.

The Attorney-General having declared it legally permissible, the Secretary of Agriculture has begun to publish the names of seed dealers whose goods have been found by the department to be adulterated. In the case of willful adulterators it seems but just and right to warn the public. Unfortunately, the names of many thoroughly honest and reputable dealers will be found in these lists, and through no fault of their own, perhaps, certain seeds being exceedingly hard to reduce to absolute purity even by honest men, once they have been sophisticated either by nature or the original owner. However, the shortcomings of rascals have all but succeeded in making the seed business disreputable and many innocent firms will suffer through others' fault until the practice of adulteration is absolutely stamped out.

It is not necessary for insurance companies to resort to the "moral risk" in explaining the cause of big terminal elevators, which are almost always in active service and too valuable as the machinery of a big company's business to fire. It may be true that some of the older houses are finding it hard to compete with the modern tank houses, equipped with the latest machinery for handling, cleaning and mixing; but a more rational cause is some carelessness in their operation, or an absence of systematic inspection. As Mr. F. J. T. Stewart of New York said recently—

"More frequent and thorough inspections by the underwriting bureaus having jurisdiction, is the most effective way to reduce these losses. The ordinary terminal elevator of wooden construction should be inspected once every thirty days and the insurance companies advised of the facts regarding the care and management. In reviewing the fires in grain elevators, the frequency with which the carelessly managed plants have burned is very apparent. Fortunately, the dust accumulates so fast that carelessness can readily be detected by a competent inspector who visits an elevator at regular intervals. The present condition of the grain market has resulted in a more general use of bleaching and drying apparatus in connection with elevators than was usual in former years. In this respect the hazards have materially increased."

Eternal vigilance is the thing; and if the insured does not exercise it, the insurer must. Insurance men are too prone to let things go and having failed to protect themselves, then

talk of the "moral risk" as a cloak for their own shortcomings. By a careful discrimination, with the aid of frequent inspections giving facts regarding condition, the ordinary terminal elevators, as a class, should continue to be acceptable risks.

In the decision against the C. & O. R. R. Co. the United States Supreme Court says: "The all-embracing prohibition against either directly or indirectly charging less than the published rates shows that the purpose of the statute was to make the prohibition applicable to every method of dealing by a carrier by which the forbidden result should be brought about." This is a doctrine that should be a new magna charta to all shippers suffering from the disguised rebate, by whatever name it may be called.

The new grading rules for grain in Illinois established by the Railroad and Warehouse Commission are now in force and effect. The changes from the old rules have been printed in these columns; but dealers shipping to Chicago would serve themselves and please the department by applying for copies of the rules complete, which will be sent to all who ask for them. The little pamphlet contains also some extracts from the rules for the administration of the inspection department which shippers might reread with profit, or at least with interest.

One of the faults of some business men of the times is they do not always read the papers that furnish trade information exclusively. In the excitement of following the antics of William II. at Algeciras, they forget all about the artful dodgering of the uniform bill of lading committee and the several important bills in Congress which they should be urging their congressman to support. Now the controversy at Algeciras might be settled if the country grain man never heard of it; but the things that concern his business, not immediately under his own eye, really ought to absorb more of his attention if conditions in the trade are to be made as safe and convenient as they might be if dealers generally gave them more of their time and thought and co-operated for their betterment.

The silly Society of Equity strike for \$1 wheat which is again for the steenth time disturbing the serenity of certain neurotic newspapers, is pretty well characterized by that wise Boy Solomon who directs the King & Co. household at Toledo, and who among other things says:

Passing resolutions does not create any demand. It is doubtful if half a million farmers could be persuaded to join any union. Say half a million wheat farmers should join a union, how many would be guided by orders to hold wheat for a dollar? Most of them get daily papers, have phones, and are as well posted upon the world's crops, supply and demand as any other class. They know the United States raises less than a quarter of the world's crop. They realize that foreigners are dictating the price.

But Boss Everett of the Society is also a wise guy. He is educating the farmers to "co-operate" by making it a part of the S. of E.

plan that every Equity man shall subscribe for his paper. Meantime as a seed dealer his name appears on the government's published list of dealers who sell sophisticated stuff.

The Bureau of Labor at Washington is preparing a report covering the various systems of workingmen's insurance and employers' liability, both in this country and abroad, the report to cover insurance against sickness, accident, disability, old age, death and unemployment. We are not informed that there is in existence in the grain trade in the United States any form of mutual relief or insurance funds organized and maintained by its employes, nor even of relief funds supported either wholly or in part by the employers themselves. If, however, any such do exist, the bureau would be glad to obtain copies of constitutions, rules and by-laws, blank certificate forms and any other matter relating to funds of this character, and request that they be forwarded to Charles P. Neill, commissioner.

The new rule doubling the commissions on speculative business is now on trial at Chicago. At the start the value of seats went up rapidly on the basis of increased earnings by holders; but the advance was soon lost, and considerably more, values falling to under \$3,000. This, however, may indicate nothing but a "tendency." Other markets are watching the experiment sharply, hoping, of course, to become residuary legatees. Some predict that the old rates will be restored within six months at the most. Certainly it is against common mercantile experience to expect business to increase when the cost of doing it is doubled. After all, what is the trouble with grain speculation? There must be a reason for its rapid decline into unpopularity during the past few years. What is it? Many may believe they know—some hint that they do know for sure; but S. H. Greely seems to be about the only man in Chicago who is willing to stand up and be kicked for published opinions. In a recent circular to the trade he resumes his old theme of reform which five or six years ago made his name familiar as the kicker par excellence of the Chicago market. He stands for the new commission rates; but says that their benefit to members of the Board can be obtained only after certain reforms shall have been carried out. He says:

First, we should secure an honest, efficient public warehouse system, by which every man may handle grain at the same cost, which is now denied us and the public, if possible under supervision of the Board; secondly, we should use our strongest efforts to secure civil service in grain inspection; thirdly, to trade in futures of each grade of grain separately, with no grade deliverable on a contract for another grade at any discount whatever; fourthly, to eliminate, as far as possible, wherever found, "one man" insurance on public warehouse grain; and, fifthly, to restore confidence in our grades of grain and the credibility of our receipts, both public and private, among the banks.

Certainly buyers of grain for consumption no longer have much confidence in Chicago public elevator receipts—millers and foreign buyers alike say they mean nothing as to the quality of grain. If this be as true as the

impression of its truth is general, the public can hardly be expected to take to speculation in that kind of property; and its truth would be justification of Mr. Greely's assertion that—

A public warehouse receipt is our commercial currency, and no paper in exchange ever commands general favor when the man who pays a dollar for it gets 90 cents, or rushes to get rid of it.

In the old days, too, when a public elevator receipt did mean something—when hospitalizing was not yet a fine art—it wasn't necessary for the seller to have the privilege of delivering any one of several grades of grain on a contract for the sale of a specific grade; and it is quite an open question if the right to exercise that option by the seller has tended to improve the speculative business of the Board, in wheat especially, much as it may have relieved occasional tension on dealers in the country. Mr. Greely is therefore not far wrong, perhaps, when he says:

Uncertainty as to grade to be received breeds discontent; a buyer knows he will get something, but just what is not specific; and any contract which gives such a latitude as a full grade or a different grade is not in keeping with good treatment to all our clients.

A definition seems to be needed as a basis for discussion of the subject of uniform inspection. Mr. Langson of the Milwaukee Chamber of Commerce, speaking of national inspection of grain as an "absurdity—impracticable," recently said:

National inspection is impossible because of the lack of uniformity. Grain varies so much in growth in different parts of the country and also in values. A foreign buyer or exporter would not know what he was getting with the certificate of a national inspector, but if he has a certificate from a primary market, such as Duluth or Chicago, he would know what kind of grain he was getting.

Would he? On the contrary, both the American miller and the foreign buyer on certificate final complain that is just what they do not know. On Mr. Langson's theory, exchanges make grading rules to suit themselves and inspectors interpret them to please the most powerful element on the market, which is neither the country shipper nor the consumer. The consequence is that a specific kind and grade of grain is differently defined in every market it passes through on its way to the consumer, and Mr. Langson and the opponents of "uniform inspection" need not be reminded that the ultimate consumer suffers at each remove. It is not proposed to dump all wheat, all corn, etc., into one lot for each, grade them Nos. 1, 2, 3, 4, rejected and no grade, and call that uniformity; but to define each kind and grade of contract grain in the same way in all markets and make the inspectors live up to the rules in and out. That's uniform inspection—neither absurd nor impracticable, as the exchanges will certainly find should the Carter bill now in the Senate become law. The fact is, the exchanges ought to anticipate any such law by themselves making uniform grading rules for contract grain and enforcing them; but as they seem in no mind to do either the Carter bill may do the work for them nolens volens.

TRADE NOTES

The Joseph Dixon Crucible Co., Jersey City, N. J., favors those who are on its mailing list with a monthly calendar in the form of a blotter, which is at once useful and artistic.

The Olds Gasoline Engine Works of Lansing, Mich., has amended its articles of incorporation, changing the name to the Olds Gas Power Co. and increasing the capital stock from \$500,000 to \$612,000.

G. T. Honstain of Minneapolis has the contract to build ten modern 60,000-bushel elevators for the Eagle Roller Mill Co. of New Ulm, Minn. These elevators are to be equipped with the Gerber Distributing Spouts.

J. D. Matteson of Worthington, Minn., is now traveling in the Northwest in the interest of the S. Howes Co., Silver Creek, N. Y. He is assisting Mr. Sherer of Minneapolis, the representative of the company in the Northwest.

Charles O. Peters of Columbus, Ohio, has been appointed state agent and inspector for the Grain Dealers' National Mutual Fire Insurance Co. of Indianapolis, Ind. J. W. McCord, vice-president of the company, will be manager for the state of Ohio.

The Sidney Elevator Mfg. Co. is manufacturing an electric motor for driving elevators (lifts) for which a number of points of superiority are claimed. The company issues a circular describing this motor and will send a copy free of charge to those who will make application for it.

The enlarged plant of the Marseilles Manufacturing Co., Marseilles, Ill., is running to its full capacity on orders. In addition to a large domestic business the company has recently shipped a number of carloads of corn shellers and other machinery to South Africa, Argentina, Brazil and Mexico.

The Burrell Mfg. Co. of Bradley, Ill., will build an 80x40 foot brick extension on their plant and equip it with machinery to increase their output of grain elevator specialties and supplies. They are running full force and started this spring with a large increase of orders over this time last year.

Attention is called to the advertisement of the Beall Improvements Co. on another page of this paper. The company is calling attention to the Beall Rotating Corn Cleaner, and publishes a flattering testimonial from one of the largest grain firms in the state of Illinois. This cleaner handles corn and oats in a way that is entirely satisfactory to the user.

J. N. Bacon, who has represented the Invincible Grain Cleaner Co. at Indianapolis, Ind., for a number of years, has taken a position at the works in Silver Creek, N. Y., and has been succeeded at Indianapolis by C. L. Hogle. The company state that thus far in 1906 business has been the largest in their history; also that prospects for the remainder of the year are good.

Samuel Olson, of Olson Bros. & Co., Chicago, is the inventor of a pneumatic grain elevator on which United States letters patent No. 795,412 have been granted. The invention consists of a tank into which the grain is drawn by creating a vacuum. A partition having five or more openings like a sieve separates the top from the bottom portion of the tank. The pipe through which the grain is drawn into the tank enters below the sieve and the grain falls to the bottom. The dust and dirt are drawn up by the suction of air through the sieve-like openings and are carried off by the fan into cyclone dust collectors. The grain remains in the bottom of the tank until a slide in the lowest point is drawn and the contents of the tank fall into bins or weighing hop-

per. The entire mechanism is very simple, being without mechanical parts except the fan. It is readily operated by pneumatic power, is self-cleaning and works rapidly.

Olson Bros. & Co. is the style under which the business of Olson, Engh & Co., engineers and contractors, 160-162 N. Sangamon St., Chicago, will be continued in the future. There will be no change in the business methods of the firm and they are prepared, as in the past, to execute orders for elevator construction, power transmission machinery and elevating and conveying machinery.

A pictorial album of the city of Indianapolis has been issued by the Indianapolis Board of Trade for the purpose of calling attention to the growth and development of the Indiana metropolis during the past few years. The array of figures given is most convincing and the illustrations showing the large manufacturing plants, fine public buildings and beautiful parks and drives make the book a most interesting souvenir.

The fire which occurred in the plant of the Great Western Manufacturing Co. at Leavenworth, Kan., was confined to the basement and side office of one of the departments, and the machinery equipment was not crippled in any way. In fact, the company were not compelled to suspend operations at all and there is no machine in their plant that is not in operation because of the fire. The main office was not touched and the company's business is proceeding as usual.

A downtown office has been opened on the ground floor of the Corn Exchange Building, Fourth Avenue, South, and Third Street, Minneapolis, by the Minneapolis Steel & Machinery Co. This office is in charge of Ralph P. Gillette, secretary and treasurer of the company. It will be of great convenience to the customers of the company, who will no longer be obliged to make a trip to the plant on Twenty-ninth Street in order to transact their business.

The W. W. Cargill Co., of La Crosse and Green Bay, Wis., have purchased a large Hess Drier and Cooler to be erected at Green Bay for drying all kinds of grain, but expressly for the purpose of drying oats before loading into vessels. The machine will handle 25,000 bushels daily. The thorough drying and airing of oats adds very greatly to their appearance and keeping qualities, and the use of such a machine is practically a necessity when tough or purified oats are to be handled or shipped in cargoes or other large quantities.

The Chicago, Burlington & Quincy R. R. have adopted the Hess System of drying for their new elevator to be erected at Harlem, Mo., by Barnett & Record Co., of Minneapolis, general contractors. It is expected that this elevator will be up to date in all particulars and will be furnished with the best equipment obtainable. The No. 6 Hess Drier will be erected and will have a capacity of 15,000 bushels daily. This will make the seventh Hess Drier at Kansas City Terminals, it being in use at that point already at the elevators belonging to the Santa Fe, Frisco, Union Pacific, C. M. & St. P. and Missouri Pacific railroads.

The American Grain Meter Co., Springfield, Ohio, successor to the Bowlus Automatic Scale Co., is calling the attention of the trade to the American Grain Meter, which is the well-known Bowlus Automatic Scale with important and valuable improvements. While the general design and principle of the Bowlus Scale have been retained, the improvements made have been so radical and have rendered the functions performed so continuous and so entirely automatic, both as to weighing and registering, that the old name of scale no longer conveys a correct idea of the improved weighing device. The latter is a meter, as its operations are continuous and entirely automatic. It measures, however, by weight, not by volume. While changing the name of the weighing device, it was deemed advisable

to change the name of the company. The company is already established in Canada, at Walkerville, Ont., and a broader name was desirable. The American Grain Meter Co. has an interesting circular describing its weighing device and will send a copy to any elevator man who will ask for it.

The inevitable, unvarying result of making any supremely excellent article of universal demand, and of making its virtues well and widely known to the inhabitants of such a country as ours, is a constantly increasing demand for that commodity, no matter what it be. The sun shines on no other land wherein the habits and traditions of the past are so quickly discarded in favor of advanced methods and improved appliances, as in this favored land of ours with its eager and persistent searchers after, and prompt adopters of, "something better." No better illustration of these "conditions," for such they most certainly are, can be found than in the recent enforced expansion of the already large and well equipped manufacturing facilities of the Main Belting Co. at Philadelphia. During the past year this ever-enterprising company has built, on the very latest and most approved lines, an addition to the plant which will very greatly increase its output and enable it to at least measurably keep pace with a demand for its Leviathan Belting which is ever increasing—as its altogether unique wear-resisting powers become more widely known. The Leviathan Belt has long since won for itself many, and is ever winning, new openings for the display of its consummate driving capabilities, and in manifold and various duties as a conveying and elevating medium is demonstrating its astonishing "fetch and carry" capabilities. To its utter insensibility to conditions that positively prohibit the employment of leather belts and that speedily wreck the best rubber belts so far produced, may be credited the already great and ever-growing popularity of Leviathan Belting with the class of belting users who insist upon "results first, last and all the time." Leviathan Belting, made only by this company, is successfully run exposed to heat, cold, wet, grease or grime, flying sparks, etc., and in its make-up combines the tensile strength of steel with the lithe pliancy of a serpent—a combination that imparts to it such a powerful grip on the pulley that the full quota of power is frequently secured with a belt running with a slackness (and consequent economy) that no other type of belt can approach. Prepared expressly for the purely practical man with small inclination for, and less time to waste on, inflated treatises, the Main Belting Co. issues a small booklet which treats of the make-up and capabilities of its output, which booklet the company will be pleased to send by mail to any of our readers who desire to investigate the claims of this remarkable power transmitter.

BEAN SHIPPING DEFINITIONS.

The Michigan Bean Jobbers' Association has adopted the following definitions for immediate, quick and prompt shipments:

"Immediate shipment" means three days from the time of receiving complete shipping instructions, not including day of sale, Sundays or holidays at place of shipment.

"Quick shipment" means five days from the time of receiving complete shipping instructions, not including day of sale, Sundays or holidays at place of shipment.

"Prompt shipment" means ten days from the time of receiving complete shipping instructions, not including day of sale, Sundays or holidays at place of shipment.

These definitions went into effect on February 15, 1906.

Some South Dakota elevators are giving free storage for three months.

RECEIPTS AND SHIPMENTS.

Following are the receipts and shipments of grain, etc., at leading receiving and shipping points in the United States for the month of February, 1906:

BALTIMORE—Reported by H. A. Wroth, secretary of the Chamber of Commerce.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	178,036	105,472	50,973	
Corn, bushels.....	4,293,290	1,325,204	4,480,638	1,165,869
Oats, bushels.....	1,010,667	235,839	475,410	55
Barley, bushels.....	36,463		101,428	
Rye, bushels.....	99,365	26,172	141,427	
Timothy Seed, lbs.....	2,210		5,012	1,936
Clover Seed, lbs.....	4,845	4,250	1,071	4,706
Hay, tons.....	5,160	4,416	1,823	1,220
Flour, bbls.....	121,241	116,653	68,061	51,376

BOSTON—Reported by Daniel D. Morss, acting secretary of the Chamber of Commerce.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Flour, bbls.....	107,576	84,597	45,530	8,078
Wheat, bushels.....	683,627	10,758	1,247,333	93,878
Corn, bushels.....	915,415	877,454	386,553	1,115,761
Oats, bushels.....	659,866	265,666	218,800	10,944
Rye, bushels.....	1,084	1,018		
Barley, bushels.....	23,489	39,313	303,525	61,366
Flax Seed, bushels.....	1,200	605		
Mill Feed, tons.....	681	780	492	47
Cornmeal, bbls.....	2,945	2,191	483	1,425
Oatmeal, bbls.....	15,682	11,647	8,545	4,390
Oatmeal, sacks.....	2,815	2,090	2,810	1,815
Hay, tons.....	8,720	13,100	4,762	1,859

CHICAGO—Reported by Geo. F. Stone, secretary of the Board of Trade.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	505,749	821,000	864,213	956,983
Corn, bushels.....	7,940,400	6,830,850	4,149,014	3,723,158
Oats, bushels.....	5,866,363	2,860,537	7,129,168	2,473,614
Barley, bushels.....	2,469,517	1,966,053	905,576	404,784
Rye, bushels.....	184,350	115,000	61,700	112,728
Timothy Seed, lbs.....	818,860	3,192,684	2,450,216	1,588,641
Clover Seed, lbs.....	752,815	371,326	639,782	322,173
Other Grass Seed, lbs.....	1,037,911	1,111,873	4,820,499	2,263,461
Flax Seed, bushels.....	134,353	161,285	11,405	14,823
Broom Corn, lbs.....	1,102,138	1,123,800	455,793	465,983
Hay, tons.....	19,526	19,613	1,747	1,015
Flour, bbls.....	849,603	610,274	775,641	519,225

CINCINNATI—Reported by C. B. Murray, superintendent of the Chamber of Commerce.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	334,386	93,819	290,050	75,698
Corn, bushels.....	820,705	662,220	384,148	430,889
Oats, bushels.....	486,549	438,489	354,647	222,152
Barley, bushels.....	153,218	105,000	110,024	1,062
Malt, bushels.....	121,544	76,512	43,654	15,000
Rye, bushels.....	30,523	20,160	25,466	11,292
Timothy Seed, bags.....	985	2,811	2,555	2,889
Clover Seed, bags.....	9,070	5,019	6,186	2,922
Other Grass Seed, bags.....	8,641	7,671	9,315	9,594
Hay, tons.....	17,582	8,500	16,500	5,124
Flour, bbls.....	136,091	93,306	101,008	59,107

CLEVELAND—Reported by M. A. Havens, secretary of the Chamber of Commerce.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	67,869	84,059	34,673	2,550
Corn, bushels.....	280,989	166,046	442,056	108,341
Oats, bushels.....	242,408	50,932	133,744	23,948
Barley, bushels.....	29,250	7,074	1,200	
Rye and other cereals, bu.....	5,460	1,580	1,428	
Hay, tons.....	3,848	769	800	183
Flour, tons.....	3,716	1,166	1,414	572

DETROIT—Reported by F. W. Waring, secretary of the Board of Trade.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	104,258	47,237	38,229	14,666
Corn, bushels.....	521,721	648,627	339,784	118,946
Oats, bushels.....	268,895	227,899	32,283	22,901
Barley, bushels.....	248,660	194,500	5,339	6,633
Rye, bushels.....	18,065	7,478	18,539	15,778
Flour, bbls.....	27,100	12,000	15,000	6,690

DULUTH—Reported by H. B. Moore, secretary of the Board of Trade.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	1,124,494	515,681	*849,953	99,547
Corn, bushels.....		30,984		600
Oats, bushels.....	327,574	155,286	*205,325	58,634
Barley, bushels.....	196,510	23,107	*90,075	47,167
Rye, bushels.....	6,985	1,764	*64,585	
Flax Seed, bushels.....	690,919	198,740	*108,509	247,907
Flour, bbls.....	60,300	28,500	60,565	42,975

*Includes grain destroyed by Peavey fire.

GALVESTON—Reported by C. McD. Robinson, chief inspector of the Cotton Exchange and Board of Trade.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....			208,000	
Corn, bushels.....			2,691,350	1,372,212
Barley, bushels.....			20,400	

KANSAS CITY—Reported by E. D. Bigelow, secretary of the Board of Trade.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	1,602,000	1,129,500	1,144,000	918,000
Corn, bushels.....	1,937,000	910,800	1,456,000	781,200
Oats, bushels.....	703,500	296,400	712,500	363,600
Barley, bushels.....	87,000	25,000	40,000	6,000
Rye, bushels.....	18,000	9,600	4,000	2,400
Bran, tons.....			2,490	2,970
Flax Seed, bushels.....			800	2,400
Hay, tons.....	10,290	8,490	4,550	3,330
Flour, bbls.....			95,200	83,000

MILWAUKEE—Reported by Wm. J. Langson, secretary of the Chamber of Commerce.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	374,880	340,560	43,996	47,882
Corn, bushels.....	1,235,950	232,750	542,374	227,345
Oats, bushels.....	729,400	373,100	604,304	209,506
Barley, bushels.....	1,676,400	891,000	863,834	608,619
Rye, bushels.....	98,400	58,400	86,387	26,200
Timothy Seed, lbs.....	282,110	88,140	257,745	1,021,525
Clover Seed, lbs.....	464,975	48,005	931,158	282,575
Flax Seed, bushels.....	47,420	16,960		
Hay, tons.....	1,681	2,579	310	152
Flour, bbls.....	129,775	116,900	179,580	129,232

MINNEAPOLIS—Reported by L. T. Jamme, secretary of the Chamber of Commerce.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	7,845,950	6,132,730	1,301,710	1,834,710
Corn, bushels.....	593,670	516,630	362,420	43,000
Oats, bushels.....	1,277,070	756,310	2,395,410	447,430
Barley, bushels.....	825,830	806,690	1,053,820	564,940
Rye, bushels.....	101,130	91,990	114,390	77,450
Flax Seed, bushels.....	884,460	174,210	437,360	57,750
Hay, tons.....	2,630	2,635	150	69
Flour, bbls.....	31,722	44,929	1,178,573	11,955,516

MONTREAL—Reported by George Hadrill, secretary of the Board of Trade.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	16,176	82,831		
Corn, bushels.....	30,085	25,475	3,250	750
Oats, bushels.....	100,173	74,864	3,200	2,260
Barley, bushels.....	8,241	57,322	7,000	
Rye, bushels.....				
Flaxseed, bushels.....	58,900	1,000		
Flour, barrels.....	20,896	27,330	83,350	92,850

NEW ORLEANS—Reported by H. S. Herring, secretary of the Board of Trade.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	157,400		160,000	
Corn, bushels.....	4,410,736	4,741,200	4,482,178	6,001,264
Oats, bushels.....	624,880	136,000	425,289	8,770
Barley, bushels.....				
Rough rice.....				
Clean rice pockets.....				
Hay, tons.....				
*Flour, bbls.....	42,764	37,555	160,151	20,019

*Through consignments of flour for export not included.

PEORIA—Reported by R. C. Grier, secretary of the Board of Trade.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	35,500	68,000	29,000	64,000
Corn, bushels.....	1,082,100	1,246,000	570,900	602,000
Oats, bushels.....	1,313,000	655,200	1,819,100	688,000
Barley, bushels.....	234,700	244,800	200,900	147,000
Rye, bushels.....	36,500	20,000	8,700	10,400
Mill Feed, tons.....	1,800	2,310	2,854	3,727
Spirits and Liquors, bbls.....				
Syrups and Glucose, bbls.....				
Seeds, lbs.....	120,000	120,000	30,000	
Broom Corn, lbs.....	165,000	30,000	202,800	141,800
Hay, tons.....	3,790	3,290	970	920
Flour, bbls.....	85,600	51,150	74,700	60,650

PHILADELPHIA—Reported by L. J. Logan, secretary of the Commercial Exchange.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	69,687	48,800	128,240	
Corn, bushels.....	2,322,596	457,742	1,715,339	712,126
Oats, bushels.....	1,769,827	239,619	1,368,563	30,000
Barley, bushels.....	71,200	21,600		
Rye, bushels.....	13,600	800	16,491	
Timothy Seed, bags.....				
Clover Seed, bags.....				
Flax Seed, bushels.....	67,200	82,400		
Hay, tons.....	7,650	9,090		
Flour, bbls.....	208,729	157,057	135,821	89,281

ST. LOUIS—Reported by Geo. H. Morgan, secretary of the Merchants' Exchange.

Articles.	Receipts.		Shipments.	
	1906.	1905.	1906.	1905.
Wheat, bushels.....	1,102,000	923,750	1,261,215	1,251,955
"sacks.....	3,857	8,103		2,077
Corn, bushels.....	3,031,000	1,554,400	1,864,095	1,298,065
"sacks.....	4,168	2,474	48,410	16,233
Oats, bushels.....	2,867,050	1,073,250	1,654,125	1,205,480
"sacks.....	250	16	49,645	12,840
Barley, bushels.....	338,750	280,000	26,315	27,920
"sacks.....			260	1,131
Rye, bushels.....	63,000	55,300	107,865	94,155
"sacks.....				100
Grass Seed, sacks.....				
Flax Seed, bushels.....				
Mill Feed, tons.....				
Hay, tons.....	19,635	21,295	8,570	9,675
Flour, bbls.....	188,725	108,060	210,395	282,355

SAN FRANCISCO—Reported by Wm. B. Downes, statistician of the Merchants' Exchange.

Wheat, centals.....	280,950	74,856
Corn, centals.....	21,419	6,774
Oats, centals.....	38,029	726
Barley, centals.....	125,024	17,246
Rye, centals.....	3,612
Flax Seed, sacks	1,398
Hay, tons.....	15,130
Flour bbls.....	83,469	42,695

ELEVATOR AND GRAIN NEWS

OHIO, INDIANA AND MICHIGAN.

Maurer Bros. have sold out their grain business at West Cairo, Ohio.

It is reported that John Crum will erect an elevator at Pierceville, Ind.

The Prescott Grain Elevator Co. will build a large elevator at Detroit this spring.

Keller & Geddy have succeeded D. C. Keller, grain merchant at Bellefontaine, Ohio.

The Saginaw Milling Co. has purchased the elevator of R. E. Hart at Montrose, Mich.

The Travis Grain Co., of Toledo, have their new elevator at Napoleon, Ohio about completed.

W. L. Mabbitt has succeeded Mabbitt & Miller in the grain and fuel business at Arcadia, Ind.

Fred Welch is equipping his elevator at Linden, Mich., with an improved Hall Grain Distributor.

Thomas H. New is erecting a grain depository in connection with his elevator at Greenfield, Ind.

Rufus Miller has purchased the Lohre warehouse at Eldorado, Ohio, and will take charge of the grain business.

The Standard Grain Co. has been incorporated at Cincinnati, Ohio, by Henry Heile Jr., Wm. Weber and Chas. Karlin.

The Worthington Elevator Co., Washington, Ind., has reorganized with W. P. Ballard as manager and secretary-treasurer.

Mead & Woodward are putting in large hopper scales and making other improvements in their elevator at Collins, Ohio.

The Richmond Elevator Co. has leased a site at Richmond, Mich., from the Pere Marquette railroad and will erect an elevator.

Fred Welch has taken over the elevator at Flint, Mich. He has thoroughly overhauled his new property and is installing new machinery.

Charles M. Rife has leased the Jackson elevator at Circleville, Ohio. The elevator has been leased for the past year to the Crites Mill Co.

O. F. Packard has sold his elevator business in Charlotte, Mich., and rented his elevator at Chester, Mich., to the Belden Co. of Geneseo, N. Y.

E. A. Morris has sold his interest in the elevator at Newcastle, Ind., and resigned his position as manager. J. R. Ulrich of Lynn, Ind., has succeeded him.

The Big Four elevator at Benton Harbor, Mich., has been sold to Abe Becker for \$700 and will be razed. The elevator has not been in use for several years.

The elevator at Elsie, Mich., owned by Curtis & Briggs, will go out of business. A short time ago the firm lost through theft a sum of \$678.48 in cash and checks.

The Willey Mill & Elevator Co. of Venice, Ohio, has purchased an elevator at Bath, Ind. The company now has elevators at Fernald, Okeana, Peoria and Bath.

Stemple Bros. Co. has purchased the elevator at Ada, Ohio, owned by Brewer Bros. The latter firm will continue to run their mill at Ada and their elevator at North Washington, Ohio.

F. E. Kelsey has disposed of his stock in the Caro Elevator Co. at Traverse City, Mich., and resigned his position as manager. He will engage in the same business in some other town.

The Daniels and Pickering Co. has been organized at Middletown, Ind., to operate grain elevators. Capital, \$40,000; directors: John C. Daniels, Charles J. Pickering and Frank Daniels.

Lancaster Bros. & Co., who recently purchased the Vandalia elevators at Columbia City, Ind., have taken out the steam motive power and installed gasoline engines, with supply tanks outside of the building.

The West Middleton Mill and Elevator Co., has been incorporated at West Middleton, Ind., with a capital stock of \$10,000. The directors are: E. W. Phares, J. M. Middleton, C. R. Nesbit, W. F. Newby and J. W. Wimit.

McCray & Morrison of Kentland, Ind., have placed the contract with Fred Friedline for a 25,000-bushel frame, iron-clad elevator, with concrete foundation, at Ade, Ind. It will be equipped with Marseilles Combined Cleaner and Sheller, two 15x7 stands of elevator legs, rope drive,

hopper scale, with garner over scale. It will be run by steam engine located about 40 feet from the elevator.

The Gale Bros. Co. of Cincinnati, Ohio, will have their new drier ready for operation very shortly, and expect to find it a valuable addition to their very complete plant. They have been operating the elevator at its fullest capacity ever since it started.

John Boggs and C. A. Weldon of Circleville, Ohio, have entered into partnership to operate the Boggs' elevator at Elmwood, Ohio. The elevator has been leased for several years past by Charles E. Groce. It was built in 1872 by Lemuel Boggs, Mr. Boggs' father, who operated it to the time of his death in 1893.

ILLINOIS.

The Kerrick Farmers' Elevator Company is being organized at Kerrick, Ill.

The Standard Grain Co. has bought the elevator of Frank Supple at Dwight, Ill.

J. A. Simpson will install an automatic weigher in his elevator at Bloomington, Ill.

A farmers' co-operative milling and elevator company has been organized at Mattoon, Ill.

The Pontiac Farmers' Grain Co. has been incorporated at Pontiac, Ill., with a capital of \$7,000.

John Puett has traded his farm in Pike County, Ill., for J. E. Hawthorne's elevator at Parnell, Ill.

The Carlock Farmers' Elevator Co. has been incorporated at Carlock, Ill., with a capital of \$7,000.

J. P. Sweitzer has disposed of his grain and feed business at Edwardsville, Ill., to Renner & Bitzer.

The Farmers' Grain and Coal Co. of Flanagan has been incorporated at Flanagan, Ill., with a capital of \$15,000.

The Lexington Elevator Company is putting in a new loading spout in the north end of its elevator at Lexington, Ill.

Geo. A. Starz has disposed of his interest in the elevator business of C. H. Ruple & Co., at Perdueville, Ill., to C. H. Ruple.

Ralph Davis of Tazewell, Ill., has sold his store and grain business to Dan Kunc of Groveland, Ill. Mr. Davis and wife will move to Denver, Colo.

The Raven Elevator Company has been incorporated at Raven, Ill., with a capital of \$6,000. The incorporators are: William G. Smith, Joseph Bonwell, James A. Earhart.

The Paloma Elevator Co., Paloma, Ill., has completed its elevator and the plant has been leased by Lohr & Lummis, hay and grain buyers. The elevator has a capacity of 6,000 bushels and cost \$3,300.

B. J. Claggett has sold his grain elevator at Lexington, Ill., to the Rogers Grain Company. Mr. Claggett, who has been in the grain business for twelve years, now permanently retires from that business.

The stockholders of the Cerro Gordo Grain and Coal Company held their annual meeting at Cerro Gordo, Ill., on February 5. The business of the concern was declared to be in a most prosperous condition. W. O. Peck was re-elected president and J. A. Hijer and William Vulgamott directors.

M. C. Davenport has bought out the interest of his partner, I. C. Felger, in the grain, coal and implement business at Lovington, Ill. The new firm will be known as M. C. Davenport & Co. Mr. Felger will devote his time to his elevator business in Bement and Milmine, Ill., and certain land interests he has acquired in Canada.

The firm of Quigg, Tanner & Co., grain merchants, and the firm of Quigg, Railsback & Co., grain merchants, both of Minier, Ill., have been dissolved. The former concern was composed of James F. Quigg, John F. Quigg and S. S. Tanner and the latter of the same gentlemen with James E. Railsback and Rodney J. Mitchell.

The Farmers' Elevator Co. of Rowell, Ill., has purchased the office and good-will of the Shellabarger Elevator Co. at that place. The Shellabarger elevator was recently destroyed by fire. The Farmers' Company is now the only grain concern at Rowell. The sale included office building, corn cribs and several lots, the consideration being \$2,500.

J. F. Humphreys & Co. have purchased Ike Livingston's elevator property at Bloomington, Ill. The elevator is one of the old landmarks of the city and for many years was operated by E. H. Rood, at one time mayor of Bloomington. The new owners will tear down the present buildings and erect a modern warehouse on the site. Frank Supple, who has been connected with the elevator for twenty-three years, has opened an office in the town where he will conduct his general brokerage

business and look after the interests of the elevators he owns at Twin Grove and Ogden, Ill.

Secretary S. W. Strong of the Illinois Grain Dealers' Association, announces the following changes of Illinois grain dealers between February 4 and March 1: J. E. Eckhart & Co. succeed J. E. Eckhart & Son, at Benson; Rogers Grain Co. succeeds Claggett Bros. at Lexington; Elmore & Lemmon (mail to Ashland) succeed Greenleaf & Co. at Hillview and Drake; H. W. Riley succeeds L. R. Smith & Co. at Sullivan; Merritt & Wierman (Dwight) succeeds W. L. Merritt at Nevada; Wm Rich succeeds O'Hara, King & Co. at Congerville; Bailey Bros. & Kearney are in business at Lanton, a new station on the Wabash, between Hammond and Lovington.

MISSOURI, KANSAS AND NEBRASKA.

A. & J. H. Myers have sold out their grain business at Ansonia, Kan.

The grain and hay firm of Mason & Sullivan, Sedalia, Mo., has been dissolved.

H. R. Arnold has succeeded C. F. Hays in the coal and grain business at Albert, Kan.

S. F. Blythe has succeeded to the grain business of Blythe & Patton at Blue Springs, Neb.

The O. F. Peters Grain Co. has installed a Hall Grain Distributor in its elevator at Yutan, Neb.

E. M. Fitzgerald of Dana, Ind., has purchased W. A. Gardner's interest in the elevator at Meriden, Kan.

The Farmers' Grain & Supply Co. of Merna, Neb., has been incorporated with a capital stock of \$25,000.

The Updike Grain Co. has installed Hall Distributors in its elevators at Winnetoon and Irvington, Neb.

G. J. Harrison has purchased J. C. Mulfinger's interest in Mulfinger & Harrison's elevator at Seward, Neb.

The Ewart-Wilkinson Grain Co. has ordered an improved Hall Grain Distributor for its elevator at Rescue, Neb.

The Farmers Grain and Stock Co. has been incorporated at Humphrey, Neb., with a capital stock of \$25,000.

The W. J. Hynes Grain Co. of Omaha, Neb., has taken over the elevator of the McCaughy Grain Co. at Harvard, Neb.

Arthur Gilbert and Roy Bain of Tipton, Mo., have purchased the new elevator built by E. Hasenwinkle at Hughesville, Mo.

E. A. Knapp has formed an incorporated company, to be known as the E. A. Knapp Co., to carry on his grain business at Omaha, Neb.

L. G. Chavey has purchased the Julian elevator at Julian, Neb., from L. L. Coryell. The elevator will be operated under the name of L. G. Chavey & Co.

The Barker Grain Co. of Springfield, Mo., has been incorporated with a capital of \$10,000. The incorporators are: J. B. Russell, C. W. Barker and George T. Barker.

C. E. Ord and J. M. Wright of Auburn, Neb., have purchased the Callen elevator at South Auburn and also the elevators at Rohis Siding, between Auburn and Johnson.

The elevator of the Deveraux Grain Co. of Minneapolis, Minn., at Uehling, Minn., has been completed. The building is 70 feet high and has six bins with a total capacity of 20,000 bushels.

The Board of Trade of Wichita, Kan., has appointed a committee of five to formulate plans for the erection of a 1,000,000-bushel public elevator. It is proposed to expend about \$150,000 on the building.

The Heald Grain Co. has been organized to do a general grain business on the Omaha Grain Exchange. E. E. Heald, formerly with the George A. Adams Grain Co. and the Von Dorn Grain Co., is the active manager.

The Updike Grain Co. of Omaha, Neb., has purchased the W. H. Ferguson line of elevators, seventy-five in number, all on the lines of the Burlington road and all in Nebraska except one at Fort Morgan, Colo. These elevators are said to have been handling about ten million bushels of grain, which has practically all gone to the Kansas City market heretofore.

W. L. Taylor has organized a new company to handle the business of the old Taylor Grain Company and the Gyrator Mill, at Topeka, Kan., now in the hands of W. E. Sterne, the receiver appointed by the Federal Court. The new company will be known as The United Milling and Grain Company and its capital is \$300,000. A charter for the corporation has been granted by the state. It is understood that Mr. Taylor will be president of the new company. Following are the directors named in the application: James Brunton, New York; W. H. Foxhall, Cleve-

land; J. R. Wilcox, Topeka; H. Parker, McPherson; W. J. Raymond, Cherryvale; W. L. Taylor, Topeka; E. A. Austin, Topeka.

The Blodgett Grain and Elevator Co. has been incorporated at Blodgett, Mo., with a capital of \$15,000. The incorporators are: B. F. Marshall, George Buchanan, Lorraine F. Jones, Benj. Gratz and Charles F. Browne.

The Cavers, Von Dorn Elevator Co. has been incorporated at Omaha, Neb., to do business in Nebraska, Kansas, Iowa, Minnesota and South Dakota. The incorporators are J. E. Von Dorn and J. A. Cavers. The capital is \$50,000.

Two new elevators are in course of erection at Enola, Neb. The Hume-Robertson-Wycoff Co. of Madison, Neb., will operate one while the other is being built by Thomas Malone, the original settler at Enola. Mr. Malone has already one elevator in operation.

Colburn Bros. have purchased the elevator on the Rock Island at McPherson, and will move it to Hilton, Kan. The bins have been torn out and the ceiling removed, preparatory to the operation, which presents considerable difficulty on account of the height of the building.

John W. Anderson, for seventeen years manager of an elevator at Holdrege, Neb., has bought the elevators owned by Titus Bros. at Funk, Sacramento and Pagan, Neb. The J. W. Anderson Grain Co. has been incorporated with a capital of \$50,000 to handle the new elevators. The incorporators are: C. A. Skoog, J. W. Anderson, and C. Engstrom.

The elevators, coal and grain business of the Torpin Grain Company at Colon, Nickerson, Crowell and Verdigris, Neb., have been sold to the Crowell Elevator Company of Blair. It is announced the Torpin Company sold because these towns are remote from their main lines, while being located convenient to the Crowell Company's headquarters.

SOUTHERN AND SOUTHWESTERN.

It is reported that a new grain firm will erect an elevator at Roanoke, Va.

Dillard & King, grain merchants at Luling, Texas, have dissolved partnership.

Knepper & Dillinger have leased the Chickasha Milling Co.'s elevator at Gotebo, Okla.

Robert & McClellan have succeeded to the grain business of O. McClellan at Nardin, Okla.

M. B. Gilbert has succeeded to the grain business of Gilbert & Black at Shawnee, Okla.

Lewis & Keith have succeeded to the grain business of Prator & Keith at Magnolia, Ark.

The H. H. Crouch Grain Co. of Waco, Texas, has been succeeded by the Crouch & Rowe Grain Co.

The Wakita Farmers' Elevator Company has been incorporated at Wakita, Okla., with a capital of \$50,000.

The Coldwater Elevator Co. has been organized at Coldwater, Texas, by Charles L. Leicht and others. Capital, \$15,000.

The grain business of Wm. Owens at Elgin, Texas, will in future be carried on under the name of Wm. Owen & Son.

The Gulfport Grain and Elevator Co. has been incorporated at Gulfport, Miss., with a capital of \$50,000. The incorporators are: J. F. Stuard, H. W. Foote, D. L. Mohler and J. A. Richardson.

The Illinois Central and Southern railways will build a concrete 1,000,000-bushel grain elevator at Nashville, Tenn. Three sites are at present under option and it is announced that the building will be completed in time for this year's crop.

The Roebrook, Josey Grain Co. of Kansas City has established a branch in Texarkana, Texas. The firm has a branch at Beaumont, Texas., in addition to its headquarters at Kansas City. W. C. Josey will be in charge of the new branch.

Randels & Grubb, one of the oldest grain and coal firms in Enid, Okla., have dissolved partnership. Mr. Randels has retired and Mr. Grubb will continue the business. They have a large line of elevators through the country. The change will not affect the business.

The T. P. Spates Grain Corporation has been incorporated at Winchester, Va., to operate a grain elevator, store grain, etc. J. H. Savage of Kernstown, Va., is president and T. P. Spates of Winchester secretary and treasurer. The capital stock is \$10,000 maximum, \$5,000 minimum.

Fred Friedline will furnish plans, specifications and superintend the building of a 100,000-bushel cleaning and transfer elevator for T. B. Jones & Co. at Memphis, Tenn. The plans and specifications for the various equipments will be ready for bids April 1. The equipment will include feed grinding machinery, Invincible Cleaners, two 100,000 Howe Hopper Scales, three automatic

bagging scales. Power will be furnished by electric motors of three-phase induction type.

The Hardin Grain and Elevator Company will let a contract for a 30,000-bushel crib elevator.

The firm of J. R. Hall & Sons of Murfreesboro, Tenn., has completed a large elevator and warehouse at West Nashville, Tenn. The elevator is one of the largest in the city and is equipped with the most modern machinery. A cotton and hay warehouse is also projected by the firm. Messrs. Hall have erected several elevators throughout the state and are planning others.

The J. Rosenbaum Grain Co., lessees of the Southern Pacific Terminal Co.'s elevator at Galveston, Tex., has just placed an order with Hess Warming & Ventilating Co., Chicago, for a No. 6 Hess Drier. It will have capacity of 15,000 bushels daily. The installation of the drier will give the Rosenbaum firm equal facilities with other houses at gulf ports already equipped for conditioning grain for shipment.

Fred Friedline has the contract for furnishing and installing the elevator and milling machinery in a 25,000-bushel elevator for Cunningham Commission Co. at Little Rock, Ark. The equipment will consist of receiving and milling elevator, three 10x30 double roller mills, reels, packers, etc. Power will be supplied by three electric motors, which will receive current from the Little Rock Railway & Electric Co.

EASTERN.

Adolphe Milot is building an elevator at Taunton, Mass.

It is rumored that the Wabash will build a big elevator on the Niagara frontier.

The Philips-Thompson Co. has completed its new elevator at Wilmington, Del.

Wade H. D. Warfield will build an elevator and storage warehouse at Sykesville, Md.

John Coombs will build an elevator in connection with his store at Nobleboro Mills, Me.

C. Frank Kimball has built an elevator at Salem, N. H., in connection with his new grain warehouse.

Alfred Perkins has bought out the grain and feed business of H. J. Courser & Son at Plymouth, N. H.

John Shea, a well-known hay and grain dealer of Lawrence, Mass., will build a large grain warehouse at Andover, Mass.

The foundation has been laid for the new boiler and engine house of the Annis Grain and Elevator Co. at North Londonderry, N. H.

According to the Worcester (Mass.) Post the Boston & Maine Railroad is making extensive purchases of land at Worcester, Mass., and will erect a large hay shed and grain elevator there in the near future.

The Ryan Elevator & Forwarding Company has been incorporated at Buffalo, N. Y., to store, elevate and transfer grain, etc. The incorporators are: T. M. Ryan, C. C. Ryan and G. D. Gillson. Capital, \$5,000.

C. A. Ketchum & Co. are building an elevator at Salem, Mass. The house will be 100 feet long by 40 feet wide and will contain nine bins, 22 feet deep and 12 feet square. It is expected to complete the building by May 1.

The Fulton Milling Co. has leased the rear part of Dows' elevators at Brooklyn, N. Y. It embraces eight large and six small bins with a capacity of 60,000 bushels. The elevating plant formerly occupied by the Fulton Milling Co. has been razed.

The annual meeting of the members of the Green Elevator Co. of Wilmington, Del., was held on February 23. The retiring officers were re-elected as follows: President, Elijah Green; vice-president, George Green; secretary and treasurer, David McHenry.

A water supply tank with a capacity of 100,000 gallons has been erected by the Boston & Maine Railroad Company to supply the automatic sprinklers in its new elevator at Mystic Wharf, Boston. The tank rests on a skeleton steel structure which rises 250 feet in the air. It is spherical in shape, 22 feet in diameter and 28 feet in height.

The following is the personnel of the first board of directors of the \$80,000,000 Corn Products Refining Co., the reorganized form of the Corn Products, New York Glucose, Warner Sugar Refining and St. Louis Syrup & Preserving companies. The Standard Oil party is in control, with eight representatives out of a board of fifteen: President, E. T. Bedford; vice-president, W. J. Matheson. Directors—From the New York Glucose Co., E. T. Bedford, F. T. Bedford, W. J. Matheson, W. H. Nichols, Thos. Gaunt, F. Q. Barstow, Charles Pratt, J. A. Moffatt. From the St. Louis Syrup & Preserving Co., R. W. Winterman. From the Warner Sugar Refining Co., C. M. Warner. From the Corn

Products Co., Joy Morton, W. J. Calhoun, Thomas Kingsford, C. H. Matthiessen, William Weaver Heaton.

WESTERN.

J. E. Jones has succeeded Irwin & Co. in their grain business at Oceanside, Cal.

C. G. McKinley has sold his grain and hay business at Anaheim, Cal., to H. H. Gardner & Co.

H. L. Inletch & Bro., grain dealers at Trinidad, Colo., have changed the name of the firm to Inletch Bros. Grain Co.

The Farmers' Grain & Warehouse Co. has been incorporated at Davenport, Wash., with a capital of \$10,000, fully paid up.

Farmers in the vicinity of Kiona, Wash., are agitating the question of shipping grain in bulk. The difficulty of obtaining and the cost of sacks are much complained of.

J. I. Keene is erecting a new wheat warehouse at Rock Island, Wash. The building will be 100 feet long by 40 feet wide and will have a storage capacity of 60,000 bushels.

L. M. Casey and Raymer Wardell of Seattle, Wash., are soliciting the sale of shares for a large terminal warehouse to be erected in Prosser, Wash., by the Farmers' Grain and Supply Co.

It is reported that the Pacific Grain Company is negotiating for the purchase of the Irving Dock at Portland, Ore., owned by the Northwestern Warehouse Company. The dock has a capacity for about 15,000 tons of wheat.

The wheat growers of Eastern Washington are looking for a site for a \$100,000 warehouse and elevator at some Puget Sound port. Mayor Isaac Ballinger of Cheney, Wash., has the matter in hand and is considering sites in the three ports of Seattle, Everett and Tacoma.

John McCollough, a miller at Joliet, Mont., is arranging for the erection of a warehouse at Seattle, Wash., to be used by the farmers around Joliet. It appears the farmers do not find a ready market for their soft wheat and say they intend entering the oriental market, exporting their grain from Seattle.

The town of Quincy, Wash., which three years ago was part of the Winchester desert, is rapidly coming forward as a grain center. Two new grain warehouses will be built this year and a fifty-foot addition made to the warehouse of the Wenatchee Milling Co. The amount of grain shipped from Quincy last year was between 200,000 and 300,000 bushels and it is estimated that the wheat crop of 1907 will be treble that of this year.

The Farmers' Grain & Supply Co. of Walla Walla, Wash., has decided to establish two terminal elevators on Puget Sound. One will be located in Tacoma and the other in Seattle near the mouth of the Duwamish River. The company has decided to purchase eight lots in Seattle at a cost of \$40,000. At Tacoma a lease of a warehouse owned by the Northwestern Warehouse Co., with the accompanying machinery, has been purchased. The company has awarded contracts for nine elevators and will build more at an early date.

THE DAKOTAS.

F. G. Brooberg will build an elevator at Putney, S. D.

A farmers' elevator company has been started at Henry S. D.

A farmers' elevator company is being organized at Gwinner, N. D.

A farmers' elevator company is being organized at Fairview, S. D.

A Mr. Gulso is organizing an elevator company at Blaisdell, N. D.

A farmers' elevator company has been incorporated at Arthur, N. D.

Walker & Huyck have closed out their grain business at Casselton, N. D.

A farmers' co-operative elevator company has been organized at Granville, N. D.

W. M. Nodding of Parker, S. D., will build a new grain elevator at Napoleon, N. D.

The Atlas Elevator Co. is carrying out extensive improvements in their plant at Brookings, S. D.

The Farmers' Elevator Company at Walum, N. D., has decided to build another elevator at Walum.

The Portal Farmers' Elevator Co. has been incorporated at Portal, N. D., with a capital of \$50,000.

The farmers in the vicinity of Wylie, N. D., have decided to organize a company to operate an elevator and lumber yard.

The Wilton Elevator Company has been incorporated at Wilton, N. D., with a capital of \$50,000. The incorporators are: John A. Johnson, Painted

Woods, N. D.; Chas. O. Hansen, J. M. Thompson, Jacob Kilian, Wilton, N. D.; Oscar F. Johnson, Slaughter, N. D.

A. A. Robinson, a Minot, N. D., grain merchant, has purchased Frank Roach's elevators, located in Minot and Surrey, N. D.

O. A. Major, president of the Farmers' Exchange of Minneapolis, Minn., has organized a Farmers' Elevator Co. at Glenburn, M. D.

Gackle & Ziegenhagel of Lehi, N. D., have purchased the line of grain elevators of the Woodworth Co. at stations west of Kulm on the Soo line.

The McCaull-Webster Elevator Company of Minneapolis, Minn., has purchased 71 feet of trackage at Aberdeen, S. D., on the Milwaukee road north of the company's yards. The yards will be greatly enlarged as soon as possible.

Andrews & Gage are contemplating building a large elevator at Montpelier, N. D., next spring, and it is said the Occident Elevator Co. of Jamestown, N. D., has also decided to build a house there.

The Sayre-Strong Grain & Mercantile Co. of Harvey, N. D., has transferred its store, elevator and machinery business to the Harvey Mercantile Co. The new corporation is headed by H. H. Phillips, who will be president and manager and will have active charge of all departments. A. J. Sayre and L. P. Strong, the principal stockholders in the old firm, have disposed of their interests in order to go to Canada.

H. P. Hammer, Fred Beier and H. S. Halvorson of Cooperstown, N. D., have incorporated under the name of the Hammer-Halvorson-Beier Elevator Company, with a capital stock of \$100,000. This new firm recently closed a deal whereby they became the owners of three elevators, one at Carrington, one at Edmunds and one at McHenry, N. D., and they expect to purchase more houses later on. Mr. Beier will move to Carrington and take charge of the elevator at that place and will have supervision over the others.

CANADIAN.

A large grain elevator is projected at Berlin, Ont.

Tyvan, Sask., is to have two new elevators built this spring.

A 40,000-bushel elevator is to be erected at Weyburn, Man., this spring.

The Alberta Milling Co. will erect a large grain warehouse at Edmonton, Alta.

T. Long & Bro. will erect a large elevator and warehouse at Collingwood, Ont.

J. E. Vandenburg has started a lumber and grain business at Daysland, Alta.

The Rushton Lumber and Grain Co. has established a branch in Bawlf, Alta.

The Northern Navigation Co. has leased a 500,000-bushel grain elevator at Sarnia, Ont.

The Plewes elevator at Moosomin, Sask., has been leased by the Sutcliffe, Muir Milling Co., Ltd.

It is rumored that a Minnesota elevator company will construct two elevators at Saltcoats, Man.

The Langham Milling Co., of Langham, Sask., contemplates building an elevator in connection with its mill the coming summer.

The Manor Farmers' Elevator Co., Ltd., Manor, Man., has been organized and will build a 35,000-bushel elevator this summer.

A resolution has been adopted by the shareholders in the Tupperville Milling and Elevator Co. authorizing the directors to wind up the concern.

The old Northern Elevator on the water front at Toronto, Ont., has been sold and the building will be used for other purposes. It has been idle for some years.

The Canadian Pacific was reported to be dispatching daily during February three trains of 25 cars each loaded with grain from the elevators at Fort William, Ont., for St. John, N. B.

Application will be made at the current session of the Ontario legislature for an act incorporating the Twin City Chamber of Commerce, for the purpose of establishing a grain and produce exchange at Port Arthur or Fort William, Ont.

The inspector of grain at Port Arthur and Fort William, Ont., prepared statistics showing the distribution of the grain crop of 1905. The totals show that 40,982,787 bushels of wheat were shipped eastward, of which 29,763,905 were shipped almost exclusively to Canadian ports in Canadian bottoms, and 11,212,882 in U. S. bottoms to U. S. ports, against 27,991,092 and 2,822,302, respectively

in 1904, and 28,160,976 and 6,532,049, respectively, for 1903.

The Wetaskiwin Farmers' Trading Association, Wetaskiwin, Alta., will erect an elevator at that point.

Openings for elevators are reported at Hitchcock and Fielding, Sask.; Wakopa and Dufresne, Man., and at Macleod, Alta.

The Red Deer Mill & Elevator Co., Blackfolds, Alberta, contemplates establishing a line of elevators along the main line of the C. N. R., and also on the branches of the C. P. R. branches running north and south from Calgary, at points with population enough to justify the erection of a 35,000-bushel elevator.

The Western Canada Flour Mills Co. have opened their elevator at St. Boniface, Man. There are seven motors working in connection with the plant of the elevator, the power for which is supplied at present by the Winnipeg Electric Railway Co. The company expects to have its large mill, which is being built in connection with the elevator, completed by June 15.

MINNESOTA AND WISCONSIN.

The Bloomer Mill Co. is building an elevator at Bloomer, Wis.

Elliott & Wasson will build an elevator at River Falls, Wis., this summer.

A. D. Beaudreau will commence work on his elevator at Degraff, Minn., in April.

De Wolf & Wells have closed down their elevator at Fairmont, Minn., for the season.

The farmers in the vicinity of Waupun, Wis., have organized a farmers' elevator company.

The Omaha Railroad Co. is thoroughly overhauling and repairing the elevator at Washburn, Wis.

Farmers' elevator companies are being organized at Kiester, Briceyn, Frost and Suckreen, Minn.

Over \$3,000 has been subscribed by the farmers in the vicinity of Danube, Minn., towards the erection of a farmers' elevator.

One of the Minnesota & Western Grain Company's elevators at St. James, Minn., is being torn down to be moved to another location farther west.

James A. Gould has purchased seven acres of land at Minneapolis, Minn., to be used by a new elevator company. The sale was made at the rate of \$2,000 an acre or \$14,000.

Frank Kingsbury of Heron Lake, Minn., is at the head of a company which has purchased a line of elevators and lumber and coal yards in Iowa. There are nineteen elevators and five lumber yards, with headquarters at Mason City, Iowa.

Extensive improvements are being carried out at the elevator at Itasca, Wis. Nearly all the bins are being remodeled and repaired, having got into bad condition from the fact that the wood of which they were constructed was green and wet and caused the sides to "dry rot."

Work has been commenced on the new Nye-Schneider elevator at Imogene, Minn., which will take the place of the one recently burned. The new elevator will have a capacity of 20,000 bushels, slightly more than the one destroyed. The burned grain was sold to August Sands for \$150.

A 150,000-bushel elevator is being built at Stillwater, Minn., by the St. Paul & Pacific road, and also a large warehouse, which will extend 350 feet between the railroad track and the water edge. The elevator will have stone foundations on the railroad side and heavy timber mounted on piles on the river side. The wheat can be taken directly from the car and spouted into the barges, or vice versa.

Hon. B. B. Sheffield has disposed of his interests in the Sheffield-King Milling Co. to his partner, Mr. King. Mr. Sheffield will retain the Morristown (Minn.) mill and will devote his time largely to the elevators in which he is interested and which consist of sixty-seven country houses and the large "K" elevator at Minneapolis. The Sheffield-King Milling Co. will be carried on by Mr. King under the same name.

The Eagle Roller Mill Co. of New Ulm, Minn., has decided to build twelve new elevators on the line of the C. & N.-W. Railroad, to meet the demand for wheat to keep the Eagle Mill in operation. The elevators will be built in the following towns in South Dakota; Hecla, Columbia, Mansfield, Rocknam, Lebanon, Raymond, Elrod, Hitchcock, Wesington, St. Lawrence and

Miller, and Porter, Minn. Each of the elevators will have a capacity of 30,000 bushels of wheat.

A new elevator is to be built at Greenland, Minn., to take the place of the Quirk house which was recently burned.

IOWA.

A farmers' elevator company has been organized at Lavinia, Iowa.

A farmers' elevator will be erected at Lake City, Iowa.

A farmers' elevator company has been organized at Boxholm, Iowa.

A farmers' co-operative elevator company is being organized at Hanford, Iowa.

The elevator at Florence, Iowa, is to be rebuilt and new machinery installed.

The farmers in the vicinity of Roland, Iowa, have organized an elevator company.

McCully & Son have purchased the grain business of J. Kirby at Des Moines, Iowa.

A farmers' elevator company is being organized by the farmers of Plymouth County, Iowa.

It is reported that Thos. Barton will erect a grain elevator at Elkader, Iowa, this spring.

The farmers in the vicinity of Northern Grundy, Iowa, have organized an elevator company.

The elevator of the Farmers' Cereal Co. at Sloan, Iowa, was formally opened on March 8.

The farmers around Nashua, Iowa, are raising subscriptions to build an elevator and coal depot.

The Centennial Mill Co. of Avoca, Iowa, has bought the property of the Des Moines Elevator Co. at that place.

The Younglove Construction Co. has ordered a Hall Distributor for an elevator they are building at Sloan, Iowa.

The Farmers' Elevator Co. of Pilot Mound, Iowa, has made arrangements to carry on its business in the Thorngren Elevator.

Close & Cooper have disposed of their elevator property at Garner, Iowa, to Charles Murphy, who will conduct the business in future.

The Jackson Grain Co. of Cedar Rapids, Iowa, has bought out W. C. Addleman's grain business at West Liberty, Iowa. Frank Evans has been placed in charge.

A farmers' co-operative elevator company has been organized at Allison, Iowa. It is proposed, if possible, to buy one of the elevators already in operation at that place.

The old Van Patten & Frisbee Elevator at Sheldon, Iowa, has been pulled down. The lumber will be used in the construction of an elevator to replace the one owned by the Button Elevator Co., recently burned at Inwood, Iowa.

The Keystone Mercantile Co., Keystone, Iowa, will build a new elevator this spring. New stock to the amount of \$5,000 has been sold to 28 new members. The old elevator, purchased from L. Kimm, was found to be too small for the growing needs of the company.

The Cooper-Von Dorn Elevator Company, which was organized some months ago to build an elevator at Council Bluffs, Iowa, has been dissolved. It is said that the plans fell through on account of the company's inability to secure trackage on the Rock Island Railroad. Mr. Cooper has purchased the wholesale flour, feed and hay business of Droge Bros., at Council Bluffs. Mr. Von Dorn has not abandoned the elevator project and in partnership with a Mr. Cavers has declared his intention of erecting a 50,000-bushel elevator next spring.

OUR CALLERS

[We have received calls from the following gentlemen prominently connected with the grain and elevator interests during the month.]

- W. Cook, Loco, Colo.
- D. C. Summers, Dallas, Texas.
- Edwin Kilburn, Spring Valley, Minn.
- L. D. White, secretary, The Beall Improvements Co., Decatur, Ill.
- A. C. Barbeau, secretary The S. Howes Co., Silver Creek, N. Y.
- Geo. H. Hanna, manager, Montreal Warehouse Co., Montreal, Canada.
- D. K. Rinehart, president, Ottawa Grain & Milling Co., Ottawa, Kan.
- H. J. Tepper, representing Richardson Scale Co., New York City, N. Y.
- Mr. Ebert, Louisville, Ky., representing Barnard & Leas Manufacturing Co., Moline, Ill.

THE EXCHANGES

Option trading has been resumed on the floor of the Omaha Grain Exchange.

Work has been started on the new half million dollar grain exchange in Winnipeg.

H. S. Herring has succeeded Fred Muller as secretary of the New Orleans Board of Trade.

A few memberships are available in the Minneapolis Chamber of Commerce, with the price at \$4,600.

John A. Costello has been reappointed inspector and weigher of grain for another year at South Bend, Ind.

The new Corn Exchange at Buffalo, N. Y., will commence business on April 1. Fred E. Pond is the secretary.

W. T. Morphy, assistant secretary of the Omaha Grain Exchange, has resigned his position to engage in mining.

A total of twelve new members were added to the St. Louis Merchants' Exchange during the month of February.

The directory of the Chicago Board of Trade has disapproved of the petition for abolishing one-sixteenth fluctuations in grain prices.

Of the three hundred seats on the Grain Exchange of Winnipeg, 240 have been sold and an offer has been made for the remaining sixty at \$2,500 a seat.

The grain committee of the Indianapolis Board of Trade has advanced the rate for car inspection from 25 to 35 cents. The rule went into effect from March 1.

The Kansas City Board of Trade has passed a commission rule charging all non-members one-eighth. A membership on the Board was sold last month for \$3,500.

The price of membership on the Winnipeg Board of Trade shows a marked increase. A bid was made on February 27, of \$2,400, the last sale, ten days previous, being \$2,050.

At the annual meeting of the Superior (Wis.) Board of Trade, T. J. Roth was elected president; Charles A. Erhart, first vice-president; G. B. Hudnail, second vice-president, and A. N. Leirt, secretary.

Hornblower & Weeks, an old-established banking and stock firm of Boston and New York, have purchased a membership on the Chicago Board of Trade. They will establish a grain department at both the former cities.

The cement annex of the burned Peavey Elevator at Duluth has been declared irregular by the Board of Trade, as the destruction of the elevator has left it without suitable means for receiving or shipping grain.

The grain inspectors, grain weighers, track samplers and apprentices of the Baltimore Chamber of Commerce have been reappointed for another year. Charles McDonald Jr. is chief inspector and J. A. Hagerman is chief weigher.

The rumor that the New York Produce Exchange and the Consolidated Exchange intended to amalgamate is denied. The basis of the rumor appears to be in the fact that the latter organization is negotiating for a portion of the Produce Exchange floor.

The Buffalo Corn Exchange is considering a plan to provide means for admitting the members of the grain and flour trade who are not willing to put up \$1,000 at the outset. It is suggested to reduce the shares to \$100 and not ask any member to take more than one of them.

Two memberships on the Chicago Board of Trade changed hands on February 27 at \$3,750 and one at \$3,775 net to the buyer. This was a reduction of \$25 and \$50 from the recent high price. A week later the price reached \$3,900, but a slump occurred afterwards and prices dropped below \$3,000.

The receipts of grain on the track at Buffalo, N. Y., for the first two months of the year were 40 per cent larger than those of a similar period during the last ten years. The total number of cars weighed by the inspection department of the Chamber of Commerce last year was 41,695, as against 33,776 in 1904.

The grain and flour section of the Toronto Board of Trade has passed a resolution urging on the Dominion government the desirability of offering liberal terms for the annexation of Newfoundland and the West Indies to Canadian confederation. The resolution pointed out that the annexation of the West Indies would give Canada tropical fruits and would encourage Newfoundland

to come in by supplying a good market for fish as well as the market for flour and agricultural products of the rest of the Dominion.

George W. Carr, for twenty years grain buyer for the Gambrill Manufacturing Co. of Baltimore, Md., has been appointed assistant grain inspector of the Baltimore Chamber of Commerce.

All grain loaded and unloaded at the Belt Elevator, St. Louis, Mo., has been supervised since February 19 by the department of weights of the St. Louis Merchants' Exchange. The fees of the department are 25 cents per carload and 50 cents per car unloaded is deducted by the P. P. Williams Grain Co.

The following board of examiners was appointed at the Montreal Board of Trade meeting on February 23. Inspection of flour and meal.—A. E. Gagnon, R. W. Oliver, J. E. Hunsicker, H. W. Raphael, Lionel J. Smith. Inspection of hay.—F. W. Lynch, Jas. McDonnell, Joseph Quintal, Joseph Bisailon, John Scott.

Eugene Smith, secretary of the St. Louis Manufacturers' Association, has been appointed assistant secretary of the St. Louis Merchants' Exchange. Mr. Smith succeeds D. R. Whitmore, who has not, however, severed his connection with the Exchange, for which he has been a faithful and valuable worker for forty years.

The directors of the St. Louis Merchants' Exchange are considering the raising of the redeemable rate of deceased members' certificates. The idea is to increase the value so as to make it a form of insurance which would raise the value of a membership on the Exchange in the estimation of the present members and of outsiders.

The directors of the Omaha Grain Exchange adopted a resolution at their meeting held on February 27, condemning the Chicago, Milwaukee & St. Paul Railway Company for "the injury inflicted in discriminating against this market and the welfare of Omaha in making lower rates on grain from Kansas City than from Omaha to Atlantic ports."

The Toledo Produce Exchange has amended its commission rules as follows: Rate on grain futures, one-eighth, or a dollar and a quarter a thousand to everybody, on two thousand lots or over; single thousands a quarter. When grain is taken in on contracts and resold here, the rate is quarter cent on all lots. Heretofore it was half cent on less than ten-thousand-bushel lots. Seed rates are unchanged.

The board of directors of the Cincinnati Chamber of Commerce, at a recent meeting, established an Inspection Bureau, which will have entire charge of this department. A committee was appointed, composed of H. H. Hill, chairman; O. G. Fetter, H. W. Brown, C. B. Murray, to draft rules for the government of the Bureau, on the questions of employing inspectors, as well as chief inspector, fixing salaries, etc., etc.

The Chicago Board of Trade has adopted an amendment to the rules making it imperative to charge not less than 5 per cent on all advances made on consignments to the Chicago market. As an inducement to the country shippers to send consignments some of the commission houses have been advancing money to their customers without charging them interest. The rule has been passed to put a stop to this method of securing business.

The appointments on the grain committee of the Philadelphia Commercial Exchange made by President King early in February, have been confirmed by the directors in spite of the opposition of many of the members. The objection centered on the dropping of the names of E. L. Rogers and James B. Canby, who had been for many years active members of the law committee. It was said that these two names were dropped on account of their opposition to the management of the investigation of the charges of discrimination brought against the Keystone Elevator Company recently.

The Chicago Board of Trade has promulgated a new rule, taking effect from March 1, making the minimum rate on transactions in futures in grain for regular delivery one-fourth cent per bushel, with further provisions for rates to members, and other special features governing the handling of the business; the rule provides also that a charge for sampling must be made to shippers on all grain hauled on consignment, but this is construed to apply only, to second or official samples. Subsequently an amendment was offered providing that the charge of sampling against consignments be eliminated.

TO INCREASE MEMBERSHIP.

A circular has been issued by George Hadrill, secretary of the Montreal Board of Trade, requesting the members to use their influence towards the augmenting of the membership of that institution, both because of the desirability

of improving its financial position and increasing its influence. In 1887 the membership numbered 1,362 and at the close of 1905, had fallen to 976. The council is directing its efforts to secure a membership of 2,000, which it considers a very modest figure for a city of the size of Montreal.

CARLOADS DEFINED.

The Chicago Board of Trade has passed amendments to the rules permitting the charging of 5 per cent interest on drafts drawn against consignments of grain, and defining carloads of grain and seed as follows: Carload of wheat, corn, rye and barley, 1,000 bushels; oats, 1,500 bushels; flax seed, 625 bushels; other seeds, 30,000 pounds.

COMMISSIONS AT MILWAUKEE.

The Milwaukee Chamber of Commerce has passed an amendment to its cash commission rules on grain, whereby outside members of the Chamber and those gaining membership after March 1, will not be allowed the one-half commission rate in future. It also provides that members of the Chamber of Commerce of Minneapolis and the Board of Trade of Chicago will be granted the same cash commission rebates as are now enjoyed by local active members of the Milwaukee body.

NEW SHIPPING RULES.

At a meeting of the board of managers of the Pittsburgh Grain & Flour Exchange held February 3, the following interpretation of the terms, "immediate," "quick" and "prompt" shipment were adopted:

Immediate shipment shall mean within three business days after date of sale.

Quick shipment shall mean within five business days after the date of sale.

Prompt shipment shall mean within ten business days after the date of sale.

Where no shipping time is given, prompt shipment be applied.

DIFFERENTIAL RATES CONDEMNED.

In the twentieth annual report of the Boston Chamber of Commerce, just out, it is pointed out that Boston is now the second port of the country on combined values, taking the place of New Orleans, and that of the aggregate gain of \$25,728,809 for Boston last year over 1904, \$19,797,350 is credited to imports and only \$5,931,459 to exports. Contrasted with Boston's small export gain, is Baltimore's gain in exports for the year of \$19,416,071 and Galveston's increase of \$23,142,480.

"These figures" says the report, "demonstrate most conclusively the burden under which we labor in our efforts to compete with the differential freight rates enjoyed by Southern Atlantic and Gulf ports on grain and its products carried for export."

The report, in the interest of Boston, calls "for the total abolition of this differential and an entire equality of eastbound rates with the most favored of the Atlantic seaports." Attention is drawn to the fact that "not a single full cargo of grain was loaded out of Boston in 1905, while ship after ship came into port and proceeded in ballast to Southern Atlantic ports to load outward."

The Toledo Salvage Company bought the stock of grain that was lost in the Union Elevator fire at St. Louis last week. The stock amounted to 370,000 bushels of grain, mostly all wheat.

Mexican millers are now depending entirely upon the American wheat. It is estimated that already about 500 carloads of the staple have been imported, and that at least 400 carloads more will be required to supply the market until the new crop arrives, which will be in the early days of June.

The insurance rate on the Vandalia elevators at Columbia City, Ind., has been lowered on account of a change in the motive power. The steam engine has been replaced by a gasoline engine, the tanks for which are located some distance from the building. The elevators were recently acquired by Lancaster Bros.

The Maine Agricultural Experiment Station is now sending out Bulletin 122 on Experiments in Orchard Culture. It is the second report of the work which is being conducted under the direction of Prof. W. M. Munson on the farm of Mr. Chas. S. Pope, Manchester, Maine. The first report was published in Bulletin 89 of the Station. The bulletin includes a discussion of cultivation and mulching as methods of treatment for orchard lands; stable manure compared with concentrated fertilizers; the Fisher formula, orchard renovation, top-grafting of orchards, and the effect of cultivation upon the keeping quality of apples.

COMMISSION

C. J. Cummins, grain broker of Columbus, Ohio, recently filed a petition in bankruptcy.

F. H. Babcock, recently of Chicago, has engaged in the cash grain business at St. Louis, Mo.

C. L. Dougherty, grain shipper of Chicago, left with his family early in March on a trip to Honolulu.

R. W. McKinnon, of Logan & Bryan, returned to Chicago March 1 from a two months' tour through Europe.

W. W. Granger, manager of the Union Grain & Hay Co. of Cincinnati, Ohio, returned March 6 from a visit in the South.

W. H. Chambers, general manager of the Peavey Elevator Co., Minneapolis, is enjoying a vacation at Long Beach, Cal.

E. L. Glaser, president of Rosenbaum Brothers of Chicago, left Chicago with his family on March 3 to spend two weeks at Lakewood, N. J.

Samuel Phillips and D. H. Lipsey, formerly with the cash grain department of McReynolds & Co., Chicago, have gone with G. S. Blakeslee & Co.

Henry G. Campbell, recently with Armour Grain Co., has succeeded E. H. Bingham as Chicago representative of Parker & McIntire of New York.

Henry Parker, Chicago, is dangerously ill and on March 9 ordered his open trades transferred as a precaution against possible serious consequences.

A petition in bankruptcy has been filed by M. L. McMinn, formerly a grain broker at Superior, Wis. Liabilities are filed at \$35,000, with no assets.

Arthur W. Cutten, formerly with A. S. White, and C. F. Hanson, formerly with McReynolds & Co., will act as principal brokers for the Marfield-Griffiths Company in wheat and corn.

C. E. White, who was for ten years the principal broker in the wheat pit for the old firm of Schwartz, Dupee & Co., Chicago, has engaged in a similar capacity with the Peavey Grain Co.

The Duff Grain Co. of Omaha, Neb., will put their elevators in good commission this spring, having employed a man to superintend construction work on new houses and remodeling old ones.

The J. Rosenbaum Grain Co. of Chicago has leased the I. C. Central Elevator "E" at New Orleans, La. The elevator has a capacity of 1,500,000 bushels and is one of the largest elevators in the South.

Samuel Hazelhurst, a broker of Chicago, failed to meet his balances at the clearing house March 8 and was forced to suspend. The liabilities were estimated at about \$5,000, with assets amounting to about half that sum. The suspension was attributed to the slump in wheat.

George M. Patch has been admitted to partnership in the firm of Knight & McDougal, with whom he has been associated since that house succeeded to the grain business of Otto E. Lohrke & Co. Mr. Patch is well known among local warehousemen and was a member of the old firm of Carrington, Hannah & Co.

Arthur R. Sawers of Chicago was made a member of the Chicago Board of Trade Clearing House on March 1. Mr. Sawers has always cleared his own cash business since opening his grain office last year, and speculative business has increased sufficiently to warrant his becoming a member of the clearing house.

R. W. Cassell & Co. of Minneapolis, Minn., have had their license canceled by the State Railroad and Warehouse Commission, due, it is stated, to the numerous complaints which had been received alleging failure on the part of the Minneapolis company to make proper returns and settlements on consignments of hay received from country shippers.

Ware & Leland of Chicago and New York have opened an office at 910 Franklin Avenue, Houston, Texas, which will be in charge of R. C. Tipps. The Houston office will have direct wire connections with all principal grain exchanges and every modern facility will be used in handling the business of the house. Mr. Tipps, the local manager, is thoroughly informed on all the details of the cotton and grain brokerage business, and was recently connected with De Buys & La Bonisse, resigning to go with his present firm.

In a test of 40 varieties of oats at Purdue experiment station, Indiana, last year, the largest yield both in bushels and pounds per acre, was

shown by the "Sixty-Day" variety. The yield was 81 bushels, weighing 32 pounds per bushel, a total of 2,592 pounds per acre. The heaviest weight per bushel was 37 pounds, which was reached by the "Black Prolific," but its yield per acre was only 51 bushels.

ELEVATOR ASSESSMENTS IN KANSAS.

In view of the lack of uniformity in the practice of assessing elevator property in Kansas, where each assessor seems to be a law unto himself, Secretary Smiley, in a recent bulletin to the Kansas Grain Dealers' Association, publishes the following opinion by a Topeka firm of attorneys upon the law:

"An elevator operator is a merchant within the meaning of Sections 7541 and 7542 of the General Statutes of 1901, and the property should be assessed in accordance with the provisions of those two paragraphs. The paragraphs read as follows:

"Every person, company or corporation who shall own or hold, subject to his control, any personal property within the state which shall have been purchased with a view of being sold at an advance price or profit, or shall have been consigned to him for the purpose of being sold, shall be held to be a merchant, and when such person shall be required, according to the provisions of this act, to make and deliver to the assessor a statement of his personal property, he shall include in such statement the value of the personal property appertaining to his business as a merchant, and in estimating the value of such property he shall estimate the average value of such articles of personal property which he shall have had in his possession or under his control during the year next preceding the first day of March preceding the time of making such statement, or during that portion of said year which he may have been engaged in business."

"In order to arrive at the average value of such property he shall estimate the amount on hand as nearly as may be in each month in the preceding year, or such portion thereof as he may have been engaged in such business, then add the several monthly estimates, and divide the aggregate by the number of months he may have been engaged in business. No consignee shall be required to list for taxation any property consigned to him for the mere purpose of being forwarded."

"It will be noticed that the statute fixes no particular day of each month from which he shall take the amount of grain on hand for the purpose of making his estimate. He may, therefore, take any day, using the same day each month in which he was engaged in business, and divide the sum by the number of months he was in business for that year, and the result will be the value of the taxable property."

"It is suggested that in some localities the amount of taxable property has been ascertained by taking the whole amount of grain handled during the year and dividing that by the number of months the operator has been in business. This is very far from the intent of the law, and would make the taxes alarmingly high."

The following is an example of the way of arriving at an average valuation:

	Purchases, Bushels.	Shipments, Bushels.	Stock on Hand, Bushels.
March	6,000	4,000	2,000
April	7,000	8,000	None
May	10,000	8,000	2,000
June	9,000	11,000	1,000
July	5,000	4,000	1,000
August	8,000	6,000	2,000
September	7,000	5,000	2,000
October	6,000	4,000	2,000
November	5,000	4,000	1,000
December	8,000	6,000	2,000
January	2,000	14,000	None
February	3,000	2,000	1,000
Total	76,000	76,000	16,000

Total stock on hand, 16,000 bu., divided by number of months in a year, gives 1,333 bu; at an average of 60c per bu., the total valuation is \$799.80. Add valuation of elevator property, which, divided by three, will give the total taxable property.

Frank Prouty, secretary of the Oklahoma Grain Dealers' Association, has been appointed territorial grain inspector.

The Great Northern Good Seed and Soil train started from Larimore, N. D., on March 12, on a ten-day itinerary. The speakers will include: Professor Thomas Shaw, St. Paul; E. E. Kaufman, superintendent of the farmers' institutes in North Dakota; A. L. Bolley, North Dakota Agricultural College; O. O. Churchill; G. A. Hoverstad, superintendent of the experimental station at Crookston, and A. W. Lichard.

HAY AND STRAW

F. H. Harter has sold his hay business at Yates Center, Kan., to Wm. Millson.

Henry Herboth has purchased the hay business of Bernard Jacobs at Uniontown, Wash.

Munn & Bell have succeeded to the hay business of Hanger & Munn at Des Moines, Iowa.

J. O. Ellison & Co. have purchased the hay, grain and coal business of C. H. Cox at Ipswich, Mass.

An involuntary petition in bankruptcy has been filed against Chas. D. Horst, hay merchant of Orrville, Ohio.

Michael Seiler, dealer in hay and feed, in New York city, has filed a petition in bankruptcy, with liabilities, \$22,463, and assets, \$2,925.

A large quantity of hay was destroyed by fire on February 19, in the wholesale grain house of A. C. Wooley & Co., at Atlanta, Ga.

Fausdick & Blackman have started a wholesale hay business at Des Moines, Iowa, under the style of the Des Moines Hay Commission Company.

One of the large hay warehouses of the Lathrop Hay Co. at Hollister, Cal., was burned last month, involving the loss of 2,000 tons of hay.

The mild winter has caused the bottom to fall out of the hay market in North Dakota. At Grand Forks the storage room is all filled up and shipments of hay have had to be held back.

The Lucern Products Co., of South Omaha, Neb., contemplate raising the capacity of their plant from 100 to 200 tons per day. The company manufactures stock food made from alfalfa and molasses syrup.

Sherman B. Townsend has retired from the firm of N. A. Fuller & Co., commission hay dealers of New York. The business will be carried on under the same name by N. A. Fuller, the remaining partner.

The Raymond P. Lipe Co. of Toledo, Ohio, sent Miss Alice Roosevelt, now Mrs. Longworth, a bale of their Cresceus brand Ohio timothy hay, last month. The hay was grown on the Will Adams Farm in Lucas County, Ohio.

Alfalfa has won yet a new territory in the vicinity of Vacaville, Cal. Two years ago two or three acres were planted by John Caughy and the experiment proved so satisfactory and profitable that this spring between 150 and 200 acres will be planted with this grass.

Hay growing last year proved a profitable undertaking for George Parrot of Deer Lodge Valley, Mont. He received \$50 an acre for 320 acres in the district affected by smoke from the Anaconda Copper Mining and the Washie Copper companies in settlement of damages. In addition, he was allowed the use of the land for two years without cost. On the remaining 160 acres of land, he raised an average of one ton of wild hay per acre, which he valued at \$10, netting altogether \$17,600.

Clover and alfalfa are being grown more and more extensively in North Dakota. It has become apparent that the same process of cultivation that prevails in the Eastern states cannot be carried on in the North, as so far it has not been practicable to continue a clover field many seasons, as after the second year it is liable to winter kill. At all the farmers' institutes held in North Dakota the past fall and winter some one or more farmers have reported on the success they have experienced in raising both clover and alfalfa.

The impression that has prevailed in certain quarters, that tame grasses could not be cultivated successfully in South Dakota, would seem to be controverted by the experience of Taylor Bros., who occupy the Grant Ranch, near Clear Lake, S. D. They raised and shipped over 1,000 bushels of timothy seed last season, in addition to which amount a large quantity was retained for seeding purposes this season and for sale to the farmers in the vicinity. The farmers have also had good success in the raising of clover and alfalfa.

Reports from New York declare that not a dealer in hay has made any money this season. It has been one of the poorest in the history of the trade. A slight improvement began at the opening of March. The inquiry was for the best grade. Medium, clover mixed and clover hay were a drug on the market. The western shippers are blamed for a bad break in the markets. They got plenty of cars and rushed the stock in over the B. O. P. R. R. and other off roads. All the cars coming on the off roads must be lightered and in some instances the cars

cost as high as \$20 a day. This condition made the receivers sell as quick as possible, and to do this the price was cut.

Damage to the meadows from lack of snow has aroused some anxiety at Montreal, though it is believed no serious harm will result unless there should be a drop in the temperature to at least 4 degrees below zero. Up to the first week in March the export trade remained very dull, Liverpool being quoted 57s. 6d. to 59s. c. i. f. for Canadian clover mixed, and London 57s. to 58s. The supply for local wants was ample at about the same quotations, clover mixed being quoted at \$5.00 to \$5.50 f. o. b. at country points and No. 2 \$6.00 to \$6.50 f. o. b.

CINCINNATI HAY MARKET.

J. V. Metzger & Company, Cincinnati, under date March 8, say of the Cincinnati hay market that: "The demand for No. 1 timothy, No. 2 timothy and No. 1 clover mixed is excellent at the present time. We rather look for a continuance of the demand for the better qualities of hay. Low grades are in slow demand and are selling very much below the higher grades of hay; in fact, we caution all our shippers to be very careful in buying anything below No. 2 timothy and No. 1 clover mixed. There is so much of this hay that it is almost impossible to dispose of it at any price at times."

HAY AT ST. LOUIS.

Daniel P. Byrne & Co., March 10: For the past two weeks receipts of hay have been very light—far short of the current demand. Around the holidays arrivals were heavy and forced a material break in prices, resulting in the storing of considerable hay in warehouses here. Light receipts of the past two weeks have enabled a cleaning up of warehouse stocks, as well as current track offerings, and to-day our market is practically bare of supplies. With the exception of No. 3 and poorer qualities, there is excellent demand for all grades of timothy, clover mixed and clover at strong prices. Advices from our Iowa, Illinois, Indiana and Ohio shippers indicate that receipts for the next few weeks will run light to moderate, account of bad country roads and spring farm work. The outlook is for firmer to higher prices and a good demand for all varieties of good feeding hay for a month to come.

A POINT IN LOADING HAY.

The most essential point in loading new hay, says a dealer, is to see that it is not loaded flat—that is, with the flat sides of the bale up. When loaded this way, with the smooth sides of the bales together, no space is left for air, and as a consequence, it invariably heats. A properly-loaded car has the edges or rough sides of the bales together. This allows air space between the bales, and always prevents danger of heating. Do not try to load cars with the purpose of beating the railroad out of a few cents in weight. It's much better to pay in excess of the actual weight if necessary, for the selling price of your hay will more than make up to you the excess freight expense. In putting up hay, it depends largely upon whom you ship to as to the size of the bales. If you ship to small jobbers who deal almost exclusively with the retail trade of the city it is advisable to make the bales small, but generally the trade on the market will create as good a demand for 75-pound bales as for 60-pound bales.—Country Gentleman.

HAY AT KANSAS CITY.

The Woolsey-Hall Hay Co., Kansas City, Kan., March 9, say: The Kansas City market this season has been largely a car market. In December and January the car famine was such as to put hay \$1 to \$2 per ton above its normal value. The few shippers who were fortunate enough to secure empty cars were benefited, but largely the damage far overruled the benefits. It is a well known fact that a hay man cannot secure cars when there is plenty of other goods to ship.

About January first the situation changed. The grain shippers were not using so many cars as during the holidays; farmers had finished gathering corn in Kansas, Nebraska and the Indian Territory and beets in Colorado; and as the high prices looked good to them and the numerous market reports urged them to ship, they apparently all turned loose at once and broke the market about \$2 per ton on prairie hay and about \$1 per ton on alfalfa and timothy; and the prices have remained at the bottom of the scale until the past ten days.

Farm work is now in progress in many sections of the hay territory, and this, together with muddy roads, has curtailed shipments, until at this writing the prices have advanced again about 50 cents per ton.

We believe the amount of choice prairie and

alfalfa in the country is very small, but there is plenty of the lower grades. Owing to the rainy harvest we had very little choice timothy this year; in fact, it is a difficult matter to secure even No. 1 on this market. In years past this market shipped thousands of cars of timothy hay, but this year we have had a very light shipping trade owing to the low quality of the hay.

CHICAGO HAY MARKET.

T. D. Randall & Co., Chicago, report, March 12: Receipts of hay and straw to-day 80 cars, market very strong on No. 1 and choice hay. Choice timothy selling at \$12 to \$13, No. 1 \$10.50 to \$11.50, No. 2 \$9 to \$10, lower grades very weak and selling from \$7 to \$8.50. We advise shipment of good hay. Rye straw \$7 to \$7.50, oat and wheat straw \$5 to \$5.50. Choice Kansas and I. T. prairie hay \$10 to \$11, No. 1 \$9 to \$9.50, lower grades \$7 to \$8.50. Choice Iowa, Minnesota and Nebraska prairie hay \$9 to \$10, No. 1 \$8 to \$8.50, lower grades \$6 to \$7.50. Illinois, Indiana and Wisconsin feeding prairie hay \$5.50 to \$6, packing hay \$4.50 to \$5.

The Geo. Middendorf Co., under date March 8, says: "The arrivals of choice prairie and timothy hay are very light and demand good; now is the time to let your hay come forward, and hay of above grades, or any other grade, will be sold at its top value. Sales to-day as follows:

Choice timothy hay.....	\$12.50@13.00
No. 1 timothy hay.....	10.50@11.50
No. 2 timothy hay.....	9.00@10.00
Good sound clover mixed hay.....	8.50@ 9.50
No. 1 to choice Southwestern prairie hay	10.50@11.50
No. 1 to choice Iowa and Minnesota prairie hay	10.00@11.00
State-feeding prairie hay.....	6.00@ 7.00
Packing hay	5.00@ 6.00
Tangle rye straw.....	6.00@ 8.00
Oat straw	5.00@ 6.00
Wheat straw	5.00@ 5.50

Freeman Bros. & Co., Chicago, say, March 12: Bad roads are prevalent generally and will continue for some time yet to come. This is an obstacle to the movement of hay and the small receipts and offerings have testified to this fact. Market has become more cleared of hay than it has been since last November and prices have reacted from 50 cents to \$1 a ton during the last two weeks. Now is the time when conditions combine to make firm, higher markets that you should get your surplus stocks off. Don't neglect this chance and hold your hay until it is easy to haul it, or easy to get cars, but make extra and constant efforts to get your hay off now. You may have to haul smaller loads and make more trips to fill a car, but you will be well repaid by the added price the hay will bring here during this month. The reserves of timothy in the country are very large. Much of this is medium and common grade, Wisconsin especially having a large stock of common hay. This grade of goods never sells well; it never brings as much as the shipper would like, and we can say to you that it will bring less this spring than it has for some years, owing to the unusually large amount of it and to the fact that it will be forced on the large cities even though prices break severely, for there is no need of the hay at home, and it must be shipped out to make room for new crops which are now rapidly approaching consideration.

THE HAY CROP OF 1905.

Hay in 1905 maintained its record as one of the great tonnage producers of the nation, the yield having exceeded 60,000,000 tons. The record, as will be seen below, has been several times exceeded since 1889, when the largest crop on record was made and when for the first time the yield exceeded 46,643,000 tons (1888). The record in tons since 1888 is therefore as follows:

1889	66,830,000
1890	60,198,000
1891	60,818,000
1892	59,824,000
1893	65,766,000
1894	54,874,000
1895	47,079,000
1896	59,282,000
1897	60,655,000
1898	66,377,000
1899	56,656,000
1900	50,111,000
1901	51,044,000
1902	59,858,000
1903	61,306,000
1904	60,696,000
1905	60,531,611

Divided by sections the crop of 1905 was produced as follows (tons):

New England	5,064,405
-------------------	-----------

North Atlantic States	11,714,844
South Atlantic States.....	1,005,519
The South, including Texas.....	3,026,975
Illinois, Indiana, Michigan and Iowa....	14,669,970
Northwest	5,329,509
Southwest	6,874,437
Rocky Mountain states, including New Mexico and Arizona.....	3,224,822
Pacific Coast, including Utah and Nevada	5,942,212
Oklahoma and Indian Territory.....	493,648

The states producing in excess of a million tons each in 1905, are as follows (tons):

Maine	1,408,061
Vermont	1,163,580
Massachusetts	1,163,580
New York	6,132,933
Pennsylvania	4,618,032
Ohio	3,921,753
Michigan	3,043,144
Indiana	2,539,875
Illinois	3,597,321
Wisconsin	3,221,989
Minnesota	1,502,314
Iowa	5,165,198
Missouri	3,094,004
Kansas	2,726,979
Nebraska	1,053,454
Colorado	1,762,849
Utah	1,141,634
Idaho	1,185,648
California	1,413,886

INCREASED ELEVATOR CAPACITY.

It is probable that North Dakota will see a large increase in its elevator and storage capacity for grain the coming season, the unprecedentedly large crops of grain last year making this a necessity. This proper lack of storage facilities last year resulted in almost unheard-of condition of lack of room for caring for the large crops. While the average yield in North Dakota has been equaled before, this has never occurred with so large an acreage under cultivation.

The northwestern part of the state, where this large increase in acreage has taken place, usually gives small returns from lack of moisture, but with weather conditions in that section nearly perfect last year, the deluge of ripened grain was the result, says the Minneapolis Market Record. The railroads were unable to handle the crop as thrashed and this made it necessary for the farmer to use every available place on his farm for storage, and as no farmer had storage capacity enough, granaries and temporary bins were built in nearly every field by the side of the thrashing machine, until time could be had to haul the grain to market. The elevator capacity in the towns was soon taxed to its utmost and many temporary structures were raised by the side of the elevators, in which the grain has been stored during the winter. It is said that the wheat so stored has kept well and much of it has now been stored shipped out.

Where these conditions have existed during the past season, active operations are either under way or in contemplation to be ready to take care of the crop the coming season.

A report from Stutsman County, North Dakota, gives one instance of the large increase in production last year. In 1905, Stutsman County produced over 2,225,000 bushels of wheat or practically 50 per cent more than the previous year, which was also a good crop year. Of oats, it is estimated the county raised 1,350,000 bushels, of rye, 46,500, of flax, 600,000. The farmers of this one county increased their wealth in grain and flax production approximately \$2,617,000 in one season.

A Fessenden, N. D., report says Regan and Lyness have been busy this week elevating 20,000 bushels of grain which they had in the large bin near their elevator. They built a "leg" or temporary elevator, and were just five days hoisting the grain into the house. There was a great deal of speculation last fall on how much waste there would be on the grain which was left out by the elevators this fall. On this lot there was not to exceed twenty-five bushels waste, which is a pretty good showing.

Hubert T. Robinson of Minneapolis, Minn., is under arrest charged with using the mails to defraud. It is alleged the defendant, between January 15 and April 1, 1905, received through the mails between \$35,000 and \$60,000 on account of sales of grain, which were never consummated. In addition to this sum, about \$75,000 was tied up in the mails after Robinson's arrest. It is charged that the business was carried on under the name of Edward A. Vaughn, but that Vaughn was really Robinson.

COURT DECISIONS

[Prepared especially for the "American Elevator and Grain Trade" by J. L. Rosenberger, LL. B., of the Chicago Bar.]

Bills of Lading for Shipments Not Received.

The Supreme Court of Minnesota holds in a bran case (Swedish-American National Bank vs. C. B. & Q. Ry. Co., 105 Northwestern Reporter, 69) that a carrier, even as to an innocent indorsee, is not estopped by statements in a bill of lading issued by its agents from showing that no goods, in fact, were received for transportation, unless, by its usual mode of doing business, it has given to its agents authority to issue bills of lading for goods not received.

The court gives as reasons upon which this rule is based, that the liability of a carrier does not begin until the goods are delivered; that while bills of lading are symbols of the property therein described, and their transfer operates as a transfer of the property, yet they are not negotiable as bills of exchange and promissory notes are; hence the carrier may show, as against a bona-fide holder of a bill of lading, that it did not receive the goods named therein. The exception to the rule—that a carrier might adopt a different mode of doing business by giving its agents authority to issue bills of lading for goods not received so as to render it liable in such cases to third parties—must be construed with reference to the rule adopted and the reason upon which it is based. So construed, the exception is limited to cases where the carrier, by its usual mode of doing business, gives to its agents authority to issue bills of lading for goods not received.

The evidence in this case tended to show that the railway company adopted printed rules for the conduct of its business, one of which was this:

"Receipts, bills of lading and live stock contracts must not be issued until entire shipment is in possession of the company, and the date shown thereon should be the date on which the shipment is completed;"

that its general agent at Minneapolis never received any authority in any way from his superiors to depart from this rule; that it was customary for the agents in charge of the Minneapolis office, where the bills of lading in question were issued, to sign bills of lading presented by shippers whom they knew to be reputable, without going out to ascertain whether the property therein described was on the track or in the cars; that at the time the bills of lading in question were delivered the firm to whom delivered were large and reputable shippers, and the bills were signed by the agent for the reason that he assumed, because the shippers were reputable business men, that the bran had been delivered; and further, that the agent never signed any bills of lading when he knew that the goods had not been delivered.

Taking the most favorable view of this evidence for the plaintiff bank, which had made advances of the amounts of drafts attached to the bills of lading, the court is of the opinion and holds that the evidence was not sufficient to sustain a finding to the effect that the railway company by its mode of business gave to its agents authority to issue bills of lading for goods not received.

The shippers, it may be added, proved to be insolvent.

Quotations and Bucket-shops.

It appeared from the averments of a complaint that for a period of ten years a telegraph company, in the exercise of its charter rights and in conjunction with its other business, was engaged in buying the continuous quotations of prices of grain and hog products of the Board of Trade of Chicago and selling the same at a fixed price to such persons as desired them, until such quotations became necessary to the safe and successful conduct of business in such products, and such quotations and this method and system of gathering and supplying the same became impressed with a public interest. The company's counsel, however, insisted that a telegraph company is not a common carrier with respect to the purchase and sale of news, and that the facts alleged in the complaint were insufficient to impose upon the company a legal duty to supply the party here desiring same said market quotations.

But, conceding the facts alleged as above stated to be true, the Supreme Court of Indiana says (Western Union Telegraph Co. vs. State on the relation of the Hammond Elevator Co. and another, 76 Northeastern Reporter, 100) that so long

as the telegraph company, a quasi-public corporation, continues in such business it must be subject to such regulations as may be found necessary to prevent injury to such public interest. The law will not permit a telegraph company, under such circumstances, to enjoy a monopoly and to misuse its franchise by supplying such quotations to some and refusing them to others who are equally able and willing to pay for them and to be governed by all reasonable rules and regulations. The facts alleged in the complaint make it plain that it was the duty of the telegraph company to supply this party with the continuous quotations of the Board of Trade without discrimination and upon the same terms exacted of others.

At the same time, the court says, the requirement of the Board of Trade, that every applicant for its continuous quotations shall, as a condition precedent to receiving them, obligate himself not to use the same for such illegal purposes as conducting a bucket-shop, is not an unlawful discrimination meriting the condemnation of the court, but, on the contrary, is a proper and reasonable regulation, to which this court unhesitatingly gives its approval. The mischief and evil consequences resulting to the state from the operations of the bucket-shop are almost beyond computation. It assumes an air of legality and respectability and insidiously ensnares many innocent victims before the public learns of the danger. Its nefarious practices are directly responsible for innumerable bankruptcies, defalcations, embezzlements, larcenies, forgeries and suicides. It ought to be outlawed by statute, as its existence is a menace to society and its operations immoral, contrary to public policy and illegal. This court is unwilling that the Board of Trade of Chicago should be a more considerate guardian of the morals of this state (Indiana) than its own courts; and, assuming the facts pleaded by the telegraph company to be true, the court unhesitatingly declares that no court, under the guise of requiring the performance of a duty by a public service corporation, should, either in violation of the contract pleaded or in its absence, compel the performance of acts vitally necessary to the continued operations of a bucket-shop.

ARBITRATION DECISION.

The following is the decision of the arbitration committee of the Kansas Grain Dealers' Association in the case of Kelly Bros. & Co., Corwin, Kan., vs. Doggett Grain Co., McKinney, Texas:

This controversy arises from the purchase by defendant and sale by plaintiff of two cars of wheat at 75½ cents per bushel, f. o. b. point of origin.

In the exchange of messages from which this contract resulted nothing was specified, referred to, nor even intimated, regarding any peculiar manner of making drafts against the shipment. Plaintiffs wired defendant: "Offering two cars Accursed Hazelton Culture (76) Tread car loaded." Defendant replied: "Skeptic Fort Worth, Texas. Affording Hazelton Accursed Culminate (75½) Tread quick Prodigy." Plaintiffs answered: "Book sale Affording Accursed Superse Hazelton Spaniel."

The exchange of the foregoing telegrams makes a complete contract, and thereafter neither party had any right to insist upon any other than the ordinary methods of doing business, except by subsequent mutual consent. When defendant wired plaintiff to ship immediately to Fort Worth two cars of No. 2 hard wheat, from Hazelton, Kan., at 75½ cents, f. o. h., he specifically stated and stipulated the time of shipment, point of destination, quantity, quality, kind and price, all of which it was in plaintiffs' power either to accept or reject, and any peculiarity in regard to making drafts against these shipments, in order to have been binding, must have been specified at the time of and together with the other conditions enumerated, and no change in, addition to nor deduction from the original contract could thereafter be made without mutual agreement.

In confirming this contract subsequently by mail, the defendant alleges that he inclosed a printed notice instructing that, "All drafts on us must be sent to the Collins County National Bank of McKinney, Texas, with specified instructions to hold for arrival of cars. These instructions must be complied with and form a part of contract of purchase." This notice, the plaintiffs claim, was not inclosed with buyer's confirmation. Be that as it may, it was not a part of the contract, because it was not embodied therein; indeed, its existence was unknown to one party to this contract (the plaintiffs) until after the contract had been completed, hence they could not be bound thereby except by subsequent agreement. Furthermore, plaintiffs' first telegram plainly states that one car was loaded, and the evidence shows that

this car was billed out and invoiced the day the contract was made, which of necessity would be prior to the receipt by them of any printed instructions or requests of defendant.

Inasmuch, therefore, as plaintiffs billed the grain per defendant's instructions, it was the plaintiffs' privilege, in the absence of any original provision to the contrary, to make draft in the usual manner, i. e., by drawing upon defendant and making draft payable on demand, with bill of lading attached, and it was the duty of defendant to pay such draft on presentation. Local conditions, or an alleged custom in some one locality, cannot be held to govern in contracts between parties in that locality and the world at large, except by specified mutual consent, and it is a rule of law, as well as an established custom of the trade, that where a seller makes a delivery of all, or even a portion, of the goods contracted, the buyer must accept and pay for same, either according to the contract or the general (not local) customs of the trade, and that failing to so accept and pay for such goods or articles immediately releases the seller from holding the property subject to any subsequent orders of the buyer, entitles him to immediately dispose of same to best advantage, forfeits all right of the buyer either to insist upon delivery of the property or to recover damages for non-delivery, and makes the buyer liable for any loss or damage incurred by seller on that account, and it has been so held in numerous instances by the supreme courts of various states.

Evidence shows that plaintiff immediately resold this wheat, one car at 1½, the other at 2 cents per bushel loss.

Therefore, this committee awards the plaintiffs:

2c per bushel on car No. 27,220.....	\$25.74
1½c per bushel on car No. 17,390.....	12.07
Protest fees on draft refused by buyer.....	4.50
Exchange, shipment sold f. o. b.....	2.25
	\$44.56

And assesses the cost in the case, amounting to \$5, against the defendant.

Witness our hands this 21st day of February, 1906.

A. H. BENNETT,
PERRY N. ALLIN,
L. NOEL,
Arbitration Committee.

RESPONSIBILITY OF CARRIERS.

In the matter of the responsibility of the carrier, buyer and shipper in case of goods sold on arrival draft terms and held at destination after arrival at the request of any for the convenience of the buyer or awaiting his acceptance, an opinion has been secured from the official counsel of the Millers' National Federation by the directory of that body, which opinion the secretary publishes, as follows:

Unless otherwise agreed to, the goods remain at the seller's risk until the property therein is transferred to the buyer. Common law fixes the risk where the title resides. (Joyce vs. Adams, 8 N. Y., 291-296; Brock vs. O'Donnell, 45 N. J. L., 441-443; McCandlish vs. Newman, 22 Pa. St., 460-465.)

But when the property therein is transferred to the buyer the goods are at the buyer's risk whether delivery has been made or not. (Terry vs. Wheeler, 25 N. Y., 520, 524; Bissell vs. Balcom, 39 N. Y., 275, 279; Wade vs. Moffitt, 21 Ill., 110, 112; Seckel vs. Scott, 66 Ill., 106, 108; Goddard vs. Binney, 115 Mass., 450, 455.)

Provided that the delivery has been delayed through the fault of either buyer or seller, the goods are at the risk of the party in fault as regards any loss which would not have occurred but for such fault. (McConihe vs. R. R. Co., 20 N. Y., 495, 497.)

After the transfer of the property and until the time for the delivery of the goods has arrived, the seller is subject to the same liability in respect to the care and custody thereof as a bailee for reward. (Barrow vs. Window, 71 Ill., 214, 219; Cloyd vs. Steiger, 139 Ill., 41.)

After default made by buyer in removing or in accepting delivery thereof, the seller is subject to the same liability as a gratuitous bailee. (Lansing vs. Turner, 2 Johns, 1317; Coon vs. Brinkerhoff, 39 Hun., 130, 132.)

The principle is that part of the consideration of the price is the care of the goods by the seller until the expiration of the specified time, if any, or a reasonable time for the buyer to take possession. After that time the seller receives no value for the custody of the goods, as he has performed all that was incumbent upon him.

Now, as to the carrier's liability. When the contract of carriage has been completed and the consignee has refused to receive the goods, or where the goods are held by the carrier at the request and for the convenience of the consignee, the carrier's liability as an insurer is reduced to that of a warehouseman, whose duty it is to exercise ordinary care. (Shoninger vs. Day, 53 Mo. App., 147; Hathorn vs. Ely, 28 N. Y., 78; Fenner vs. Buffalo, etc., R. Co., 44 N. Y., 505; National Line Steamship Co. vs. Smart, 107 Pa. St., 492.)

Railroads usually have freight houses in which goods are placed on reaching their destination, and in the absence of some contract or agreement by

which the consignee is bound to unload from the cars, their liability as carrier is not reduced to that of warehouseman until the goods are placed in the freight house ready to be taken by the consignee, and if the consignee fails or refuses to take the goods, the duty of the carrier as warehouseman involves the storage of the goods. If by custom or contract the duty of the carrier is performed when it places the car containing the goods on a sidetrack ready for unloading by the consignee, then from that time the liability of the carrier as carrier ceases and that of warehouseman begins.

To summarize the law, and in conclusion, I might say that where a miller sells flour payable on arrival of the goods, and the railroads hold the flour at the convenience of some favored patron of their Eastern market, the question as to who assumes the responsibility of the loss by fire or other damage while the flour is being held for the convenience of the buyer is one between the railroad and the buyer, construed in the light of the rules of law as herein laid down; that is to say, the seller, having properly packed the goods and exercised all reasonable care in respect thereto, is absolved from further liability and the railroad company is liable to the buyer for the exercise of ordinary care.

BUYING FLAX FUTURES NOT GAMBLING.

Chas. Nelson, a North Dakota farmer, some time ago ordered the Ames-Brooks Company of Minnesota to sell flax for future delivery. The market went the other way and the farmer developed cold feet and pleaded gambling. The court at Grand Forks says:

"The case is important from the fact that the defendant sought to escape payment of a claim on the grounds that the transaction was gambling. The Ames-Brooks Company is engaged in the grain business at Duluth, and Nelson is a Ramsey County farmer. He had shipped grain to the firm at Duluth and several years ago wired the firm to sell for him 3,000 bushels of flax for October delivery at \$1.29 1/4 per bushel. His orders were complied with, and Nelson failed to deliver the flax, the prices of which went soaring skyward. The commission firm was required to buy the flax on the market at a much higher price and brought suit to recover the loss sustained, something like \$1,000. Nelson contended that the transaction was gambling and hence could not be collected through the courts. The case is similar to one from Cass County, which was decided by the Supreme Court in favor of the commission firm, the opinion in that court being written by Judge Fisk, who was sitting for one of the Supreme Court judges when the case was submitted."

WAREHOUSE CERTIFICATES IN KANSAS.

Secretary Smiley of the Kansas Association in a recent bulletin says:

"If you make a practice of storing grain, I would advise that you take notice of the warehouse law enacted by the last legislature. Session Laws, Chapter 224, reads:

"Section 1. All persons, firms or corporations owning, manufacturing or dealing in flour, grains, mill products, seeds or other farm products, who own or control the structures wherein any such business is conducted or such commodities stored, may issue elevator or warehouse certificates, or receipts, for any such commodities actually on hand and in store, the property of such person, firm or corporation, and may, by the issue of such certificates, sell, sign, encumber or pledge such commodities.

"Sec. 2. Before any such person, firm or corporation, except as hereinafter provided, shall be authorized to issue such elevator, or warehouse, certificates, or receipts, he or it, as the case may be, shall file in the office of register of deeds of the county wherein such elevator, warehouse or other structure is situated, a written declaration, which shall contain the name and place of residence or location of such person, firm or corporation, and shall state that he or it designs keeping or controlling an elevator, warehouse or other structure for the storage and sale of commodities mentioned in the preceding section, and shall contain an accurate description of such elevator, warehouse or other structure, the location thereof, and the name or names of any person other than the one making such declaration who has any interest in such elevator, warehouse or structure, or in the land upon which it is situated. Such declaration shall be signed and acknowledged by the party making the same before some officer authorized to take acknowledgments of deeds for said county.

"Sec. 7. Any person who shall willfully alter or destroy any register or certificate or receipt without entering or preserving in such book the registered memorandum; or who shall knowingly issue any certificate or receipt therein provided

for when the commodities or commodity therein enumerated are not in fact in the building or buildings it is certified they are in; or shall, with intent to defraud, issue a second or other certificate for any such commodity for which, or for any part of which, a former valid certificate or receipt is outstanding and in force; or shall, while any valid certificate or receipt for any part of the commodities mentioned in this chapter is outstanding and in force, sell, encumber, ship, transfer or remove from the elevator, warehouse or building where the same is stored any such certified property, or knowingly permit the same to be done without the written consent of the holder of such certificate, or receipt; or if any person knowingly receives any such property or helps to remove the same, he shall, upon conviction, be punished by fine not exceeding ten thousand dollars, or by imprisonment in the state prison not exceeding five years."

"How many of you are violating this law? If you must store grain for the farmers, you had better comply with the terms of this bill or you may get into serious trouble. Suit has been commenced against a dealer in the southern part of the state for violation of this law and the court will determine whether or not it is constitutional. A dissatisfied customer can make you lots of trouble, and can find plenty of cheap lawyers to take the case."

LIEN OF BANK AFTER DISHONOR OF DRAFTS ATTACHED TO BILLS OF LADING.

An Arkansas mill company which was indebted to a local bank for over \$20,000 overdrafts, shipped two tanks of oil to Louisville, Ky., consigned to its own order, with drafts attached to the bills of lading, which drafts were discounted to the bank, their net proceeds being credited to the overdrawn account. The drafts were not paid or accepted, but were returned with the bills of lading attached, and were charged up by the bank to the mill company's account. Then another creditor of the mill company attached the oil as the latter's property, though the bank had not surrendered the bills of lading.

The Court of Appeals of Kentucky affirms a judgment in favor of the bank on its claim of the oil. It says (Kentucky Refining Co. v. Bank of Morilton, 89 Southwestern Reporter, 492) that when the drafts, which were foreign bills of exchange, were dishonored, the original debts represented by them were not thereby extinguished, but remained an unpaid obligation of the drawer. It was not to be supposed that the purpose of the parties to the transaction was to do less than to give to the bank as security for that much of its debt a lien upon the property pledged by the symbolic delivery of the oil to the creditor. As the lien was given to secure so much of that debt, so long as it remained undischarged the lien also continued. Of course, the pledgee could have released its lien by surrendering the pledge. But that it did not do. On the contrary, it held it as security for the identical items for which it was given as security. The fact that the bills of exchange, when dishonored, were charged back to the drawer's open account did not affect its liability on that part of its indebtedness. That was merely a matter of bookkeeping, in which the real transaction of the parties was not lost.

Continuing, the court says that, though it should be true that, when the bank credited the mill company's overdrawn account by the net proceeds of the bill of exchange, that much of the original debt was extinguished, yet it took the bills with the attached collateral as evidence of the drawer's obligation, implied by its signature to and discounting of the bills, which was to guarantee that the bills would be honored on due presentment. When they were dishonored, the drawer's liability was not merely to suffer an entry to be made on the payee's books showing that the original debt had not been paid, but was to pay the equivalent sum, the guaranty of which the collateral was pledged. So long as that much of the debt remained unpaid, whatever form its evidence may have taken short of novation, the lien imposed by the pledge inhered to it.

Reports from Michigan say the crops in that state have wintered well. There is some poor wheat, which was sown late and was poor when winter came.

March opened in Philadelphia with more than 3,000,000 bushels of grain in the elevators, and over 500 cars loaded with nearly 1,000,000 bushels of cereals from the West and Canada, covering miles of tracks along the Delaware River. The export record for February for the past 10 years was broken this year, when shipments aggregating 2,527,702 bushels left the port, as compared with 742,316 bushels last year.

IN THE COURTS

Charles A. Long, a farmer, feed and grain dealer at Dresden, Ohio, has filed a petition in bankruptcy in the United States court, with liabilities of \$10,500 and assets of \$4,500. Lillie D. Long, his wife, filed a similar petition, with liabilities of \$10,500 and assets of \$5,000.

W. P. Devereaux & Co. of St. Paul, Minn., have sued the South St. Paul Grain Company to recover damages of \$87.50 for alleged failure to sell the plaintiff twenty carloads of upland hay at \$8.25 a ton, the defendant failing, it is claimed, to deliver seven carloads after filling the balance of the contract.

C. J. Burnham, a hay and grain dealer of Holyoke, Mass., has won two suits for damages against hay dealers at Three Rivers, Que., for failure to deliver hay on contract. The plaintiff claimed that this failure caused him heavy loss. He was given a verdict for \$400 in one case and \$205 in the second. The defense was inability to secure transportation. Mr. Burnham has other similar cases pending.

The Duff Grain Co. of Nebraska City, Neb., has filed a suit against the Missouri Pacific Railway in the District Court asking judgment for \$700. There are a number of items in the bill of particulars, decisions on which will be of much interest to the grain trade. The principal are overcharges on freight and non-delivery of cars at their destination in time. The company operates a large number of elevators in Nebraska and Kansas on the lines of the railway.

In the interests of the Omaha grain terminal, the Great Western Railway has secured an alternative writ of mandamus ordering the Union Pacific to show cause why it should not be obliged to construct switches for the convenience of grain elevators at Sheely. It is sought to require the Union Pacific to connect with its main line with the grain terminals instead of compelling the grain interests to use the roundabout connection with the Great Western at Twentieth Street, Omaha.

The burning of the Milford Elevator at Warsaw, Ind., four years ago has had a rather curious sequel in a case now pending in the Circuit Court. At the time of the fire Landon C. Malcolm had 800 bushels of wheat stored in the building. He asserts that Thomas Clayton, who owned the greater portion of the wheat in the elevator, sold all the salvage grain, but did not pay him for his proportion. Accordingly he has brought a suit for damages. Clayton's defense is that Malcolm made no effort to save his grain and can, therefore, lay no claim to a share in the proceeds of the salvage sale.

The McNeil Grain Co. of Sioux City, Iowa, and other judgment creditors have applied to the Circuit Court for the appointment of a receiver for the assets of the defunct Weare Commission Co. of Chicago. The complainants in their bill make an attack on Adolph J. Lichstern, a broker, alleging that he received sums aggregating \$300,000 from the Commission Company prior to its failure and that this money has never been accounted for. It is alleged that the money was paid Lichstern for the purchase of stocks, and that these stocks were never bought or that the broker retained them for his own use. The Chicago Title and Trust Co. was subsequently appointed receiver.

Alleging that his business has been ruined, his health injured and his credit impaired, A. Fred Brown, a grain dealer, who was suspended a little more than a year ago by the Boston Chamber of Commerce for unbusinesslike conduct, has filed a claim for \$100,000 damages against the Chamber, preliminary to an action against that body in case the claim is not recognized. During the latter part of 1904, Brown, it is alleged, obtained control of corn deliveries over the N. Y., N. H. & H. R. R. into Boston, and when his fellow-brokers were unable to carry out their contracts for future deliveries, Brown bought corn on the floor of the Chamber under the rule of the exchange. It was alleged in the charges brought against him, that he not only effected a corner on corn, but that his purchases under the rule were at exorbitant prices, and that they were made from a broker in his own employ. Brown's suspension by the directors expired on February 13.

The old elevator in Marseilles, Ill., which was built in 1855 by the late John Armour of Ottawa, Ill., is being torn down, having outlived its usefulness. At the time of its erection, the canal was the only means of transportation.

TRANSPORTATION

The announcement is made that the I. C. R. R. Co. will discontinue charges for switching as now applied by that company; the new rule to be effective March 15.

It is reported that the Missouri, Oklahoma & Gulf Railroad has secured a right of way from Afton, I. T., and will build south down the Grand River to Wagoner, I. T.

The Missouri Pacific Railway will extend from Luka to Dodge City, Kan., the line of the Denver, Memphis & Atlanta running from Conway Springs to Luka. This will open up to the Missouri Pacific the wheat lands of Pratt and Kiowa counties in Kansas.

A settlement of the grain rate dispute is declared to be in sight. The proposal is to increase the rates 1 cent from Missouri River territory to the Gulf ports through St. Louis and also 1 cent from the same territory to all seaboard ports through Chicago and all other gateways.

The C. & N.-W. Ry Co. has announced a rate of 18 cents on coarse grain from Omaha, South Omaha and Council Bluffs, to apply via Dixon, Ill., and the Illinois Central. The rate has been higher to intermediate points between Memphis and the Gulf, than to New Orleans, and now the 18-cent rate on corn has been made to apply to these intermediate stations.

The Canadian Lake and Ocean Navigation Co. has made two charters for carrying wheat on the opening of navigation, one from Fort William to Montreal at 7 cents, and one to Kingston at 5½ cents, insurance to be paid by shipper. The Midland King and Midland Queen, owned by the Midland Navigation Co., have also been chartered for several trips from Fort William to Georgian Bay, at 2¼ cents.

The railroads of the Central Freight Association territory have agreed on the grain rates for the coming summer, the schedule being the same as that in force last summer. This means a reduction in the through rates on grain from Chicago to New York of 2½ cents a hundredweight, or from a 17½ cent basis to a 15 cent basis. The existing tariff will be effective until December, when an advance will be declared.

The Wabash has decided to accept its proportion of the Minneapolis rate on wheat and rye products to points east of the Illinois-Indiana line. By this action the rate on flour from Chicago to New York is reduced from 17 cents to 16 cents. Chicago grain men have secured a long-sought-for milling-in-transit privilege by the action of the Wabash, a concession on which hitherto all the roads have been obdurate.

Five roads are preparing to rush lines to Hudson's Bay as soon as the weather will permit the work of construction to commence. The Canadian Northern, which was the first in the field, is pushing forward supplies to Erwood, Man., from whence will be constructed 300 miles to Fort Churchill on Hudson's Bay, while the Canadian Pacific and the Grand Trunk Pacific railways will probably build from Prince Albert, Man.

This would make the rate through Chicago 24 instead of 23 cents, which would permit both eastern and western lines receiving their local rates of 13 and 11 cents respectively. It would also preserve the agreed differentials to the Gulf ports under the seaboard ports. Such action would leave only the eastern fobbing charge of 1.6 to be absorbed. It is stated that no difficulty would be experienced in arriving at a decision with regard to this.

The solicitations of Portland, Ore., grain men, have at length had their effect on the Oregon Railroad & Navigation Company. The company has announced a reduction of 30 cents a ton on grain, which is to be shipped foreign from Portland. This will enable Portland exporters to overcome the differential of 1 shilling, 3 pence on the rates of sailing vessels, in favor of Puget Sound. It is regarded likely that the action of the O. R. & N., will be followed by the Northern Pacific and Great Northern.

The conference held last month between the Eastern and Western railroad officials to come to some agreement on grain rates from the Missouri River territory, proved abortive. No agreement was reached and the conference broke up after some heated discussion, which left both parties in the same position as before. During the sitting a small bomb was exploded by the Chicago Great Western, who announced that it had joined with the Wabash on a through rate of 23 cents to the seaboard. Chicago grain men

are pleased with the action of these two roads who have come to the rescue of the Chicago market, while all the other roads seem leagued against it.

An additional burden has been placed on Peoria grain dealers by the C. P. & St. L., C. & A.; Illinois Central; C., C., C., & St. L.; and Vandalia Railways, who announce that after March 1, no elevator or transfer charges at Peoria will be absorbed on grain originating west of Peoria handled on through published rates to East St. Louis, Thebes, Cairo, or Evansville, when destined to these roads proper via those points to territory south of the Ohio River, on and east of the Mississippi River, including Southeastern and Carolina territories.

Work has been commenced on the Colorado. Texas & Mexico railroad in Llano, Gillespie and Taylor counties, Texas, and at Mangum, Okla. About 60 miles of the line from Mangum to Chillicothe, have been constructed and that branch is expected to be completed by the fall. As proposed, the road will be built from Cheyenne, Wyo., to Aransas Pass, Tex., and will there connect with the Mexican lines. The road will penetrate the states of Colorado, Kansas, Oklahoma and Texas, and will be about 2,000 miles long including the branches.

At a meeting of trunk line traffic managers held at New York, new "lake and rail" rates to take effect on the opening of navigation, were decided on. Comparing with rates a year ago, they are ½ cent per bushel lower on wheat and flax, unchanged on barley and oats and are ½ cent per bushel higher on rye and corn. The new rates are: wheat, 4½ cents; flax, 4½ cents; rye, 4½ cents; corn 4 cents; barley, 4 cents; oats, 3 cents. The new rates refer to export business only, and for the first time in some years higher "lake and rail" rates will be charged for local than for export grain business.

By agreement between the Chicago Great Western and the Wabash Railroad systems with the Eastern roads, including the Baltimore & Ohio and the Pennsylvania, a differential of three cents a hundred pounds against New Orleans has been obtained for Baltimore for export grain from the West. This means that traffic in cereals from the West by the way of these lines is to pay only three cents more a hundred pounds than New Orleans is now required to pay. This, it is said, will equalize conditions to a more satisfactory basis and practically assures a continued large movement in this direction.

The Updike Grain Co. of Omaha, Neb., has brought suit against the Milwaukee Railroad to compel that road to deliver grain to the Union Pacific at Council Bluffs for Omaha elevators or to haul the grain itself at the same rate for which the Union Pacific offers to haul it. The published rate of grain from Iowa points on all roads carries a charge of \$6 per car for hauling across the bridge. Last year the Union Pacific put in a rate of \$2 per car for hauling grain from Omaha to Council Bluffs and in January of this year reversed the rate and made it apply from Council Bluffs to Omaha. Thus the Union Pacific charge for hauling grain from Council Bluffs to Omaha is \$2, while other roads charge \$6 per car. The grain companies claim Milwaukee Road is trying to hold grain at Iowa points until a little later, when the movement of grain to the south will stop because of warm weather, which will change the movement to the Atlantic seaboard and thus give the Milwaukee and other roads the haul to Chicago instead of a haul of 100 miles or less to Omaha.

The Railroad Commission of the state of Washington has announced that a hearing will be begun at Colfax, Wash., on June 6, to consider and hear testimony on the two complaints now before the Commission on the subject of a joint rate on wheat. One complaint comes from the milling interests of Puget Sound and the other from the farmers and shippers of the Palouse country. The Oregon Railroad & Navigation Company has proposed a plan which it hopes will obviate the necessity for a joint rate. The company agrees to absorb the differential in ocean rates as between the ports of Portland and Puget Sound on foreign cargoes. The complainants, however, have pointed out that several other elements enter into the situation in addition to the differential on foreign rates. It is claimed that there is often a difference of from 2 to 4 cents a bushel in the price of wheat between Portland and Puget Sound, whereas the difference in foreign rates is scarcely 1 cent a bushel. It is said that a large percentage of the difference in price is accounted for by an alleged monopoly of the millers and exporters at Portland. Another advantage claimed for wheat buyers in the latter place is the difference in grading between Oregon and Washington, there being an arbitrary stand-

ard of 59 pounds to the bushel, maintained by the Portland exporters, while the Washington State Grain Commission has fixed the standard at 58 pounds.

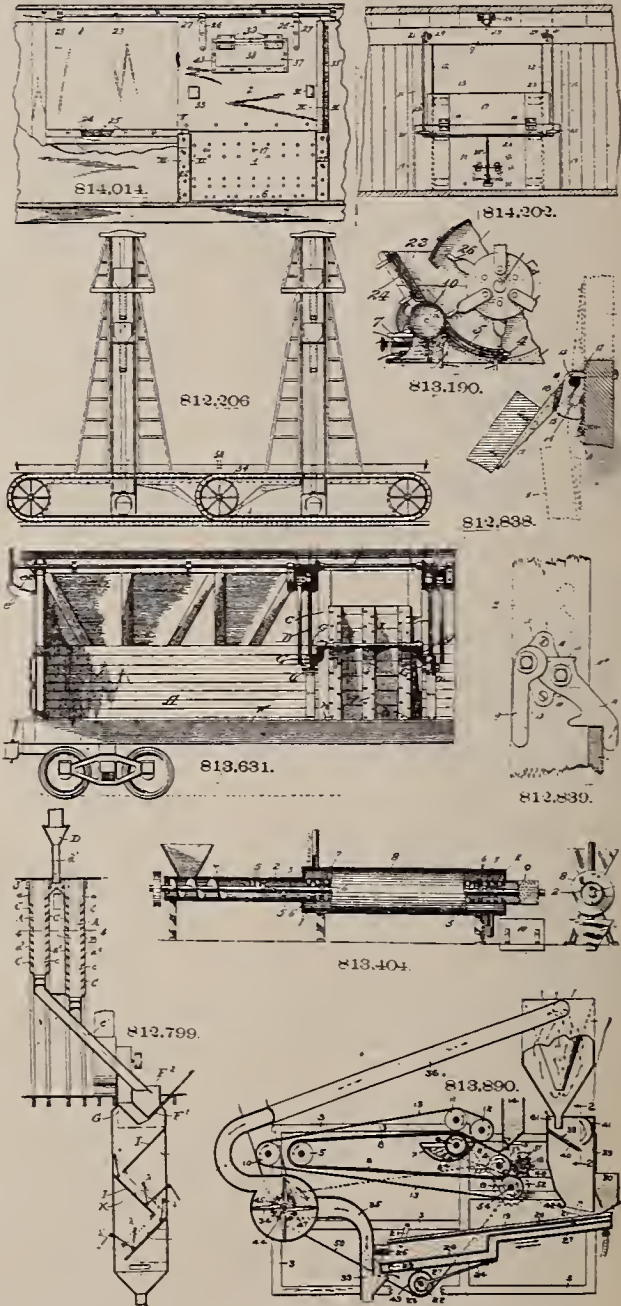
The war between the Eastern and Western roads shows no sign of abatement. The Western lines, having refused to accept the proportion of the Missouri River rate offered them, and refusing also to arbitrate, have planned a coup which they believe will bring their rivals to terms and also more than offset the desertion of the Wabash and the Great Western. They propose to make a rate on Iowa corn to the Gulf in connection with the Gulf lines which will move export corn through the Gulf ports even during the spring and summer. They claim that the drying arrangements at New Orleans make it possible to ship corn from that port at all seasons of the year and in better condition than it can be shipped from Baltimore, where antiquated methods prevail. This plan is far from pleasing to the Chicago grain men, as it means the exclusion of their market.

LATE PATENTS

Issued on February 13, 1906.

Floating Elevator or Lighter.—Michael S. Iverson, New York, N. Y. Filed March 14, 1904. No. 812,206. See cut.

Apparatus for Cleaning Grain.—Harvey C. Miller, Philadelphia, Pa. Original application



filed June 18, 1904. Divided and this application filed September 27, 1904. No. 812,799. See cut.

Issued on February 20, 1906.

Grain Door for Cars.—John Feucht, Brainerd, Minn. Filed April 27, 1905. No. 812,838. See cut.

Grain Door Lock.—John Feucht, Brainerd, Minn. Filed April 27, 1905. No. 812,839. See cut.

Conveyor.—Charles H. Anderson, Chicago, Ill. Filed August 4, 1905. No. 813,134.

Disintegrating Machine.—Milton F. Williams, St. Louis, Mo., assignor to Williams Patent

Crusher & Pulverizer Co., St. Louis. Filed August 13, 1904. No. 813,190. See cut.

Issued on February 27, 1906.

Process for Removing Rough and Irregular Foreign Seeds from Clover and Other Smooth Seeds.—David S. Cook, Basil, Ohio, assignor of one-third to Joseph W. McCord and one-third to William S. Cook, Columbus, Ohio. Filed July 19, 1905. No. 813,404. See cut.

Conveyor Chute.—Freeman R. Willson Jr., Worthington, Ohio, assignor to Joseph A. Jeffrey Columbus, Ohio. Filed May 22, 1902. No. 813,473.

Conveyor.—Freeman R. Willson Jr., Worthington, Ohio, assignor to Joseph A. Jeffrey, Columbus, Ohio. Filed May 22, 1902. No. 813,474.

Method of Separating Buckthorn and Plantain Seed from Clover and Alfalfa Seed.—Samuel P. Glunt, Union City, Ind. Filed September 21, 1905. No. 813,495.

Door for Grain Cars.—Victor Elmquist, Chicago, Ill. Filed December 12, 1904. No. 813,631. See cut.

Clover Seed Re-Cleaning Process.—Shirl Herr, Lebanon, Ind. Filed April 20, 1905. No. 813,890. See cut.

Issued on March 6, 1906.

Combined Grain Door and Loading and Unloading Platform for Box Cars.—Jacob S. Bender, Kansas City, Mo., assignor to Bender Car Door Co. Filed June 12, 1905. No. 814,014. See cut.

Feed Mill.—Nelson Burr, Batavia, Ill. Filed February 4, 1904. No. 814,114.

Door for Grain Cars.—John J. Hahn, Kansas City, Mo. Filed May 3, 1905. No. 814,202. See cut.

Fabric Belt for Conveyors.—John J. Voorhees, Jersey City, N. J. Filed August 25, 1905. No. 814,416.

[For the Indiana Grain Dealers' Association.]

ARBITRATION VS. LITIGATION.

BY C. E. NICHOLS.

I had some experience in both arbitration and litigation years ago, before I was a member of an organization that had an arbitration committee. The arbitrations were left to men of good judgment in the same line of business, who were familiar with just such transactions as they were called upon to decide, and their decisions were entirely satisfactory, at least to me. In the case of litigation, I was sued by a party who, I thought, had no case whatever, but after testifying against one another all day long and the case had gone to the jury, I went home thinking the other fellow had made out quite a case and that I never wanted another lawsuit if it could possibly be avoided. I mention these facts of my own experience because they go to show that it pays to arbitrate rather than litigate. And it is so much cheaper. In the case of the arbitration, left to my neighboring dealers, there was no charge; in the litigation, while I had no court costs to pay, I paid a lawyer's fee of \$35.

I had the honor last year of being chairman of the National Hay Association's arbitration committee. That committee was composed of five members from as many different states, consisting of two receivers and three shippers, and they were called upon to decide eight cases, I believe. In each case there was a unanimous verdict, and being a shipper, I am sorry to say that nearly every case was decided in favor of the purchaser—which only goes to show that while the majority of the committee were shippers, they could see the justice of the case and could decide in favor of the receiver without partiality.

The arbitration committees of organizations of this kind are usually selected, I believe, from widely separated parts of the state, and are supposed to be men of experience and good judgment. The differences which are bound to creep in occasionally between the buyer and the seller are usually honest differences, and all either party wants is to do the right thing, but all do not see alike. When it is left to a committee who are disinterested and impartial and are familiar with trade rules and with such transactions, their decision is very apt to be fair and right. Each one of you think of it, if you had a difference, in which you were sure you were right, would you not rather leave it to five disinterested and impartial men familiar with transactions of the kind in question and acquainted with trade rules governing such deals, than to a jury, however honest but unfamiliar with customary ways of handling such trades?

As to the cost of arbitration, the rule governing the committee of the National Hay Association is that each party to the arbitration shall put up \$10, and the successful party has his money refunded. Compare that with attorney's fees and court costs, as well as not having men

to decide it for you who are familiar with such transactions. I believe in the old adage, "Never resort to law for trifles," but in leaving your differences with the arbitration committee of your organization you will get justice and also do away with the annoyance and cost of litigation.

FIRES--CASUALTIES

Fire damaged the grain warehouse of Hartzel & Snyder at Minneapolis, Minn., on February 15, to the extent of \$3,000.

The Columbia Elevator at Westport, S. D., was burned on the morning of February 21. The cause of the fire is unknown.

A defective chimney caused a fire in the Cargill Elevator at Iona, Minn., on February 20. The damage is estimated at \$2,000.

The warehouse of Anderson & Harris at Nashville, Tenn., caught fire from some unknown cause on February 13, entailing a loss of \$17,000.

The Trans-Mississippi Elevator recently built by the Trans-Mississippi Grain Company at Tomah, Iowa, was partially burned on March 6. The damage is \$60,000.

A Lehigh Valley freight car, loaded with grain, crashed through the grain elevator of Potter & Co. at Athol, Mass., on February 13, causing damage to the extent of \$200.

The Sheffield-King elevator at Northfield, Minn., was destroyed by fire on February 20, with a quantity of grain and 800 sacks of flour. The cause of the fire is not known.

Fire broke out in the Reliance elevator at Ruthven, Iowa, about 10:30 on the night of February 19, and an hour afterwards the building was in ruins. The cause of the fire is unknown.

The mill and elevator of H. S. Edwards & Co., at Chetopa, Kan., was destroyed by fire on March 2. About 15,000 bushels of wheat were destroyed with the buildings. The loss is estimated at \$35,000.

The elevator of the L. I. Button Elevator Co. at Inwood, Iowa, was burned on the afternoon of February 15, entailing a loss of about \$6,000. The origin of the fire is unknown. Insurance of \$4,500 was carried.

An elevator at Robinson, Kan., owned by Gregg Bros. of St. Joseph, Mo., caught fire from sparks from a passing engine on the night of February 28 and burned to the ground. The loss was about \$3,500, fully insured.

The Dakota Elevator Company's elevator at Lawndale, Minn., was destroyed by fire on February 18, together with 10,000 bushels of wheat. The loss on the building is estimated at \$5,000, covered by insurance.

The elevator of the Atlas Elevator Company at Lake Preston, S. D., was burned on the morning of March 3. The origin of the fire is unknown. The loss on the building is estimated at about \$5,000 in addition to the loss of the grain.

A fire of unknown origin destroyed the Olson Elevator at Cooperstown, N. D., on February 26. The fire started in the engine house about 8 o'clock in the evening and was beyond control by the time assistance arrived. The elevator had a capacity of 45,000 bushels and was almost full.

The overflowing of a gasoline tank in the La Rose Grain Company's engine house at La Rose, Ill., on February 10, caused a fire which threatened to destroy the building. The blaze was got under by means of a Harden Chemical Fire Extinguisher before much damage was done.

The 15,000-bushel elevator of L. L. Cass of Farnham, Ohio, was destroyed by fire on February 25. The fire started at 10 o'clock in the morning in a grain drier eighteen feet distant from the elevator. The cause was overheated hot air pipes. There was \$3,000 insurance on the plant and stock which was settled at \$2,950.

The Osborne & McMillan elevator at Forada, Minn., was burned to the ground early in the morning of February 10. The fire originated in a small building used as an engine room and office. It is supposed that gasoline vapor escaping from the engine became ignited by the heat from the stove. There was no fire apparatus at hand and nothing could be done to save the building. About 10,000 bushels of grain were destroyed with the elevator.

The hay warehouse of the Stanley Grain Company at Lawrence, Mass., was destroyed by fire on March 1. The fire, which is supposed to have originated from a spark from a locomotive, broke out about 9 o'clock in the evening and all efforts to subdue it proved unavailing. There was about

300 tons of hay in the building at the time, as well as some condition food, all of which was destroyed. The loss was estimated at \$5,500, covered by insurance.

The grain warehouse at Greenland, Minn., owned by the Quirk Milling Co. of Minneapolis, caught fire from a stove on the morning of February 16 and was burned to the ground. About 300 bushels of wheat were destroyed with the building.

The Security Elevator at Dawson, Minn., was destroyed on February 22, by a fire which at one time threatened to wipe out the entire business section of the town. Fifteen buildings were destroyed before the fire could be got under control. Its origin is unknown, but it is believed to have been the work of an incendiary.

A fire which broke out among some baled hay in the grain store of E. A. Cowee at Worcester, Mass., on February 24, caused \$5,000 damage before it was got under. The fire started about 7:30 in the evening from some unknown cause and is being investigated by the police, who believe it to be a case of a carelessly thrown cigarette or cigar stub.

The police are investigating a supposed attempt at incendiarism at the hay and grain storehouse of William F. Fifield at Olneyville, R. I. A small boy, named Edward Karoli, while playing on the platform of the storehouse crawled through a hole and discovered a can of kerosene with a quantity of chips and excelsior, apparently arranged with great care.

Incendiarism is believed to have been the cause of a fire which destroyed Charles Wilson's elevator at Otisville, Mich., on March 4. The fire broke out about 10 o'clock in the evening, and the building and contents were entirely destroyed in a couple of hours. About 450 bushels of grain were lost. The loss is estimated at \$3,000, with \$1,500 insurance.

The Wheeler Elevator on the Buffalo River, Buffalo, N. Y., was destroyed by fire on the night of March 2. The loss on the building and contents is estimated at \$175,000. The fire started about 5 o'clock in the evening and the entire fire department was taxed to prevent its spread to the surrounding buildings and shipping. The cause is unknown.

James Schultberg, of the grain firm of H. Schultberg & Sons, Port Hope, Ont., lost his life while superintending the loading of a car of grain at the elevator on February 20. A stoppage having occurred in one of the spouts, he attempted to remove the obstruction, but losing his balance, fell into a large body of wheat and was smothered. His brother, H. Schultberg Jr., made a desperate effort to save him and was nearly involved in the same fate.

PLEA FOR THE RATE BILL

In an address at Boston on February 27 to the Massachusetts State Board of Trade, Charles A. Prouty, of the Interstate Commerce Commission, appealed to the one section of the country that has heretofore steadily opposed any endorsement of the Commission with power to adjust rates found to be unjust and discriminative. Mr. Prouty said there is no doubt in the minds of those familiar with the actual conditions in Congress that a measure, at least substantially like the Hepburn bill, would become a law as this session, but a prominent Senator had told him recently that they could not rely upon a single vote from New England for the passage of the bill. He said the carriers which would be affected by a reduction of coal rates, for the most part are railroads without a mile of track in New England, naming the Delaware, Lackawanna and Western, the Reading and the Pennsylvania. He continued: "What I wish to emphasize is that New England suffers most, not from the operation of its own railroads, but from those which lie entirely without its borders. The foundation of the Standard Oil Company was the railroad rebate. Rockefeller could dominate nearly every railroad of consequence in northern New England. He is investing his income in railroads of more strategic importance, and is thus perpetuating these unjust advantages.

"The people who demand this legislation are not socialists. The President of the United States, who is the head and front of this movement, is not a socialist. He stands for a decent thing, and it is not a decent thing nor a wise thing to permit the monopolists of this country to control, without governmental check, as they do to-day, our commercial highways."

It is anticipated that the grain shipments from Portland, Me.; for the season ending May 1, will be the largest in years. The estimate is for 7,500,000 bushels as against 2,750,000 for the same period one year ago.

CROP REPORTS

The farmers in Oklahoma have commenced sowing oats. The ground is said to have never been in better condition.

Umatilla County, Ore., reports the mildest winter in its history. No snow and a prospect for one of the largest wheat crops on record.

March reports from Kentucky show that the wheat wintered well. The condition was given as 96, in December it was 98 and last March 85.

The Canadian Northwest is looking forward to a record acreage this year. The rapid railway development is opening up new and extensive wheat areas.

The first wheat was sown in South Dakota by Charles Walton at Miller, early in March. The majority of the farmers are, however, holding back till the end of this month.

A judicious supply of rain has brought the crops in California to an excellent condition and so far no serious complaints have been heard from any part of the state.

Excellent conditions are reported in the Southwest. Farm reserves of wheat are given at about 17 per cent of last crop or 28,000,000 bushels in Kansas, Nebraska, Texas, Missouri and Oklahoma.

The oat crop in Texas is said to be somewhat short, compared with last season, the acreage showing a perceptible decrease. Wheat acreage also shows a slight decrease, but the crop prospects are good.

It is stated that more land has been turned for spring crops in Tennessee this year than there has been so early in the season for the last ten years. The general crop conditions are reported to be very favorable. An immense yield of wheat is anticipated. The acreage of corn this year has been largely increased.

A discordant note comes from Michigan where it is said the wheat suffered some damage in February. Half the correspondents report only one week of protecting snow. March and April are the critical months, as the harvest there is later than in most winter wheat states. Condition in December was 94.

The Crop Reporting Board of the Bureau of Statistics of the Department of Agriculture, from the reports of the correspondents and agents of the Bureau, finds the amount of wheat remaining in farmers' hands on March 1 to have been about 158,403,000 bushels, or 22.9 per cent of last year's crop, as compared with 20.1 per cent, or 111,055,000 bushels, of the crop of 1904 on hand on March 1, 1905, and 20.8 per cent, or 132,608,000 bushels, of the crop of 1903 on hand at the corresponding date in 1904. The corn in farmers' hands is estimated at about 1,108,000,000 bushels, or 40.9 per cent of last year's crop, against 38.7 per cent, or 954,268,000 bushels, of the crop of 1904 on hand on March 1, 1905, and 37.4 per cent, or 839,053,000 bushels, of the crop of 1903 on hand at the corresponding date in 1904. Of oats there are reported to be about 379,805,000 bushels, or 39.8 per cent of last year's crop, still in farmers' hands as compared with 38.8 per cent, or 347,166,000 bushels of the crop of 1904 on hand on March 1, 1905, and 34.9 per cent, or 273,708,000 bushels, of the crop of 1903 on hand at the corresponding date in 1904. The following table shows the percentages of last year's crops of wheat, corn and oats on hand on March 1 in the sixteen principal grain-producing states:

States.	Wheat. Per Cent.	Corn. Per Cent.	Oats. Per Cent.
New York	24	28	45
Pennsylvania	36	37	41
Texas	15	36	21
Ohio	28	37	39
Michigan	27	35	39
Indiana	23	40	30
Illinois	19	42	34
Wisconsin	36	35	45
Minnesota	28	39	46
Iowa	31	48	44
Missouri	19	40	35
Kansas	18	38	30
Nebraska	27	44	44
South Dakota	25	46	52
North Dakota	20	22	55
California	8	16	11
United States	22.9	40.9	39.8

Reports from Minneapolis say that the elevator conditions in that city are unprecedented. Wheat stocks are increasing at the rate of 700,000 to 800,000 bushels a week, instead of showing a

decrease, as they would under normal conditions at this time of the year. The total capacity of the elevators is 31,000,000 bushels, but the end of the first week in March left barely enough room for 4,000,000 bushels, before the entire capacity is filled.

FACTORS OF CROP REPORTING.

Some very pertinent remarks anent the crop expert were made many months ago by O. K. Lyle of New York, which are worth rereading on behalf of the general principle enunciated. He said in the New York Journal of Commerce:

"Each year the trade is given expert crop estimates that often have a price effect. The number is not so many who take the trouble to determine if these estimates are mathematically correct. It is a fact such estimates attempt the impossible, for condition figures as given by state agricultural bureaus and by the Department of Agriculture at Washington admit of no expressions in quantity. This being true, it stamps with uncertainty any figurations based upon them. We can determine if the promise, evidenced by growth, is for a good or bad crop, but we cannot measure it. It is anybody's privilege to make a guess, and the emanations from the so-called experts are no more. It is simple arithmetic to take condition figures, with resultant yields, in the past and apply them to a given condition and area for a growing crop, but so long as condition figures mean more bushels per acre for 100 in one year than in another year, you can arrive at no satisfactory result.

"Taking winter wheat for five years (1900-1904) we found that a condition of 100 on June 1 on the acres remaining for harvest meant 15.92 bushels per acre in 1900, 18.49 bushels in 1901, 19.96 bushels in 1902, 14.69 bushels in 1903, and 15.83 bushels in 1904. Here is presented a difference of 5.27 bushels per acre on a meaning of 100 in condition. This difference in the extremes of five years applied to the 27,723,000 acres remaining for the crop of 1905 means a difference of 156,400,000 bushels. Who can say if either extreme, or an average of the five years, will best apply, or that a new extreme be not made?

"The area planted is as much guesswork as condition figures. Areas are defined once in ten years, when the census is taken. Each year is estimated to mean so much more or less acres than in the year preceding. This estimating goes on until a new census furnishes a new basis. We all know how wide of the mark the census of 1899 declared the figures of the Agricultural Department to be. No crop expert ever got his area except by dependence on official reports and applying his own notions to it.

"Traders are not satisfied with condition figures alone. A measurement in quantity is wanted, and it is given them by many who make parade of reports that too often are issued for speculative ends and do not stand much inquiry. One so-called method, or system, in vogue is taking the condition of wheat at harvest and the yield per acre and determining from them what a condition of 100 means in bushels per acre. This determined, there is an application of it to all crop months without consideration being given or allowance made for the declining figures on condition and area preceding harvest. In five years (1900-1904) the average abandonment of winter wheat area was 3,415,613 acres, and a very important item. December and April figures are issued on the sown area, and May, June and July on the acres remaining as made up on May 1st in each year.

"It is easy to determine condition figures on sown areas for the months of May, June and July. It is essential for comparison to get all conditions each year on the same acreage. In five years (1900-1904) the declines in condition averaged from December to April 8.29 points; April to May, 8.57; May to June, 4.17; and June to July, .57. Any estimate that disregards the declines in condition and areas in the past in estimating a crop from a harvest condition for any of the months but the harvest month is bad arithmetic and of harmful influence. Unfortunately the general trader does not sufficiently question such estimates—does not indulge in a little figuring on his own account."

The grain dealers of Canada have under progress of organization a mutual fire insurance company to insure elevators and their contents. In a circular issued, it is shown that while grain elevators have paid to insurance companies something like \$446,000 in the past four years, losses by fire on this class of risks have been but \$40,000, leaving profits to the companies of about \$400,000. In the scheme outlined, each elevator will be called upon to contribute a certain amount as capital towards the formation of the company. The manager of the new company is to be a gentleman who is at present manager of one of Winnipeg's banks.

SEEDS

October seed was traded in for the first time in Toledo, during the week ending March 10, selling at \$6.20.

The annual banquet of the Boston Seed Trade Bowling League, was held on February 12. Harry E. Jenner presided.

The W. A. Denison Seed Co. has been incorporated at Ellisburg, N. Y., with a capital of \$20,000. The incorporators are: W. A. Denison, E. A. Denison, and A. P. Denison.

The John A. Salzer Seed Co., LaCrosse, Wis., received an order last month from the Japanese government for a consignment of seeds to be sent to Sapporo, Japan, for the use of the imperial farms.

The Montgomery Blue Grass Seed Co., at Mt. Sterling, Ky., whose plant was burned a short time ago, is preparing to rebuild. A two-story building will be erected, equipped with the latest machinery.

Funk Bros. of Bloomington, Ill., shipped 1,300 bushels of "Boone County Special" seed corn to Alexandria, Egypt, and 10,000 pounds of seed corn to Melbourne, Australia, last month. The seed will be used for experimental purposes by the respective governments.

The Lincoln Corn Growers Association and the Farmers' Institute held their annual session at Canton, S. D., on February 27-28. The corn exhibits were the largest in the number of exhibitors, which have been shown since the association was organized.

The principal clover-producing sections are protesting against the foul red clover seed that is being brought in from Chili and other countries. It is so seriously mixed with dodder, that this troublesome parasite promises to infest the best grain-producing section of the United States.

The Crenshaw Brothers Seed Co., has been incorporated at Tampa, Fla., with a capital of \$50,000, to carry on the business formerly conducted under the title of Crenshaw Bros. John A. Crenshaw is president; Ira A. Crenshaw, vice-president and manager; Frank S. Love, secretary and H. P. Inabnett, treasurer.

The American Flax Fiber Co. proposes to erect a complete mechanical process factory in Chelalis, Wash., for extracting fiber. The plant will cost about \$45,000. The farmers in the vicinity planted 530 acres with flax last year and found it a very profitable crop. There is an excellent market for the fiber, about \$125,000,000 worth being imported last year into the United States.

The Minnesota experiment station at St. Anthony Park, Minn., announces the breeding of a highly intensified flaxseed type, to be known as Minnesota, No. 25. This is the result of fourteen years' continuous experiment along the lines of greater seed production and it is claimed that the new seed will produce, under like conditions, an average yield 26 per cent greater than common varieties.

The price of clover seed is the highest for many years. The unusual strength of the market is said to be due to general crop shortages for the past two years. The export trade is the reverse of some recent seasons. Exports of clover seed for the six months ending January 1 were 1,126,600 pounds, as compared with 6,482,800 pounds the preceding year. The import trade shows a corresponding increase.

The Washington Department of Agriculture has issued a circular relative to an investigation of the adulteration of blue grass, clover and alfalfa seed. The department gathered seed from all parts of the United States, buying in the open market, and of the seed examined, about one-third was found to be adulterated. The degrees of adulteration varied from 10 per cent to 75 per cent. The names of upward of 100 firms which the department alleges are selling the adulterated seeds, are printed in the circular.

The Kansas experiment station has recently completed an investigation of commercial seeds as sold by dealers in that state. Adulterations were found to be most marked in the cases of alfalfa and the commercial forage grasses. Samples of alfalfa obtained in the open market were found to contain impurities ranging from 10 per cent to, in one case, 75 per cent. The station calls attention to this deception of the public by seed dealers and producers, and suggests the establishment of a state seed laboratory, where samples can be examined and analyzed for the farmers of the state and thus protect them from such practices.

THE CO-OPERATIVES

The Faribault Farmers' Elevator Co., Faribault, Minn., lost money in 1905, but will try again in 1906.

The Sutton Farmers' Grain and Live Stock Co., Sutton, Neb., did a large business in 1905, but was able to pay no dividend.

The Farmers' Grain and Live Stock Association of Oakland, Neb., paid a 10 per cent dividend on business of 1905, amounting to \$750.

The Farmers' Grain Co. of Illiopolis, Ill., in 1905 (July 15 to February 1, 1906), handled 551,574 bushels of grain and earned a 6 per cent dividend on \$10,000.

J. S. Canaday of Minden, O. G. Smith of Kearney and D. B. Baker of Beatrice, members of the directory of the Nebraska Farmers' Co-operative Grain and Live Stock Association, and T. Cone of Wahoo, a member of the association, met at Lincoln on February 16 to discuss the project of erecting a terminal elevator at Omaha. No quorum of the directors being present, no business was transacted.

The Farmers' Elevator Co. of Faribault, Minn., closed the year in February owing \$1,778.68. In explanation of the loss in conducting the business, it was claimed that it had all been sustained in the buying of the wheat, for which they had paid within five cents of a bushel of Minneapolis prices, which was more than the market would warrant when the losses in grading and dockage were taken into account. After considerable discussion a motion was carried to issue new stock to the amount of \$6,000 and the chairman was authorized to appoint a committee of five to solicit subscriptions.

The Farmers' Grain Co. of Devils Lake, N. D., an auxiliary company of the Farmers' Railroad Company, has decided to put in a line of elevators at the new stations on the Aneta branch, and a local authority says it is probable that before the next season starts the number of houses of the company will be increased from eleven to twenty. Three independent elevators at different points are now figuring on becoming a part of this growing independent line. President G. W. H. Davis and Secretary W. G. Samuels were instructed to visit the towns along the Aneta extension and look after the securing of stock needed to put in these new houses.

ANOTHER CANADIAN PIPE DREAM.

A movement has begun at Sintaluta, Sask., to organize the grain powers of the Canadian West on co-operative lines for marketing grain, and preliminary thereto a meeting at Sintaluta adopted and prepared for wide distribution a long series of whereases, which enumerate many imagined wings, and also the following:

"Whereas, Such a company, loyally supported, would, in addition to paying a fair dividend, provide a surplus to be expended in investigating conditions in eastern Canadian and European markets, with a view, among other things, to determine the fitness or unfitness of our grading system as a means of classifying our wheats to suit the requirements of those markets, and, if necessary, recommending such changes in the grading and in the regulations governing terminal elevators as will tend to keep export prices at the highest possible point; and

"Whereas, A simple and seemingly feasible plan for starting an experimental market will be presented and is likely to commend itself to the shareholders as a feature of their business."

So the model upon which this new freak will be built is that of the Minnesota Farmers' Exchange.

MANITOBA GRAIN GROWERS.

The Manitoba Grain Dealers' Association at Braudon, on March 1, adopted the following resolution:

"Resolved, That whereas it is a matter of common opinion that the Manitoba and Northwest Grain Dealers' Association, Winnipeg, is an organization which prevents free competition in the buying of grain, which is detrimental to the interests of the great bulk of the residents of this province, and even arrogates to itself the power of the courts in levying fines for the violation of its rules, we therefore hold that it is a combine or conspiracy for the restriction of trade; and we would ask the executive of the Grain Growers' Association to direct the attention of the attorney-general's department to the matter, and ask that the methods of the Mani-

toba and Northwest Grain Dealers' Association be investigated."

A report of the standing committee on grades and inspection was read by Mr. Nicholson. Important recommendations were made to lower the grades of Manitoba wheat. The general opinion of the delegates seemed to be that the grades were too high at present compared with those at Duluth and that the standards should be lowered one grade all around, but the report was referred back to the committee to confer with a committee on the same subject from Saskatchewan.

The report in substance demanded that all grades be dropped one standard, that is, that No. 1 extra be the same as present No. 1 hard and so on. The discussion that followed the reading of this report was certainly a wild one and some most astonishing statements were made; it was evident that few of the farmers present knew the small amount of difference in weight between our own imperial bushel and the Winchester bushel used on the American side. Even an ex-president of the Association was not posted on this point.

NORTHWESTERN FARMERS' EXCHANGE.

The Northwestern Farmers' Exchange of Minnesota and North and South Dakota met at Minneapolis on March 8 and 9. The attendance was about 200, with 1,200 shares represented; considerable enthusiasm prevailed.

The object of the present meeting was to lay plans for organizing the Exchange in the three states as one body. It is proposed that the cash secured from the sale of shares shall go one-half to the election of line elevators and the other half to the erection of terminal elevator, which shall be in charge of the farmers themselves who are members of the Exchange. An offer was received from West Superior to furnish a site for the terminal elevator should there be funds enough secured for its erection.

Papers were read by O. G. Major, the leader of the movement, upon the best plans for organizing farmers' elevators, and the duty of each elevator unit to the Exchange. Thomas Nimlos of Ellsworth, Wis., spoke upon the matter of co-operation and its teachings. S. H. Greely, Chicago, in a paper on "A History of Market Influences," dealt with the way values are manipulated.

The members of the Exchange will endeavor to gain an entrance into the Minneapolis Chamber of Commerce. At the session of March 8, a committee of three, consisting of L. K. Meyers of Blabon, N. D., M. S. Blair and George E. Case, was appointed to wait upon the members of the Chamber of Commerce to see if some arrangement could not be made whereby the Exchange would secure representation in the Chamber.

The new directors are as follows: O. G. Major of Hope, N. D.; M. S. Blair of Ojata, N. D.; William Schulz of Valley City, N. D.; L. K. Meyers of Blabon, N. D.; J. P. Brown of Long Prairie, S. D.; F. L. Volk, H. C. Block of Maine Prairie, S. D., and J. Cornman. Geo. Murray was elected president and David Tumitten secretary.

NEGOTIABILITY--BILL OF LADING.

The Maryland Court of Appeals held, in the case of The Merchants' National Bank of Baltimore versus Chesapeake Steamship Company of Baltimore, that by the common law a bill of lading is quasi-negotiable only, and where the words "not negotiable" are stamped or printed across the face of the bill, they result in the total destruction of negotiability; that it is the duty of a carrier issuing an "order" bill of lading to require the surrender of the bill before making a delivery of the property, and if the carrier is guilty of negligence in not enforcing this requirement, and such negligence is the proximate cause of injury to one innocently dealing with the property, such negligence will furnish a valid ground for a recovery in damages, but that where the carrier delivers property represented by a "non-negotiable" order bill of lading to a rightful holder of the bill of lading without requiring the surrender of the bill, and such holder thereafter fraudulently alters the date of the bill and transfers it for value, the proximate cause of the loss is the crime of the transferrer and not the negligence of the carrier, and no recovery can be had thereon as against the carrier. The court further held that the alteration of the date in a bill of lading is a material alteration and avoids the instrument.

March is the great month for wheat exports from Argentine, last year March's average was nearly four million weekly. April, three and a half and May dropped a million lower. The surplus this year is said to be about the same.

BARLEY AND MALT

The Mankato Malting Co. has purchased the Hillesheim property at Mankato, Minn., and it is rumored will build a large elevator this summer.

The Dayton (Wash.) barley market has been practically at a standstill during February. The price at the latter end of the month was \$21 a ton, or a dollar higher than the price in February, 1905. The Dayton market has been gradually improving its prices, owing to an increased export demand and an improved quality of grain. Some years back the only barley raised in the district was feed barley and was sold at from \$8 to \$10 a ton.

The Wochenschrift für Brauerei prints the following method of barley drying, which is practiced in the east of Germany: "Two-thirds of the barley are spread on the granary floor, and the rest is dried on the kiln, so as to reduce the percentage of moisture from 9 to 10 per cent within twenty-four hours, the temperature on the kiln not being allowed to exceed 112 degrees Fahrenheit. The warm, dried barley is thereupon strewn equally over that on the granary floor, and the whole mixed together intimately. The mixing is repeated once or twice after a couple of days' rest, and the whole of the parcel will then chit uniformly when malted. This method is considered even better than drying the whole parcel on the kiln, and is less expensive.

CAUSE OF IMPERFECT GERMINATION OF FRESHLY HARVESTED BARLEY.

The fact that the behavior of barley in the beginning of the season is different from its behavior after more or less prolonged storage is traced by the author to the wax contained in the barley. In the new barley in the early part of the season a less amount of ready-formed carbohydrates soluble in water, less diastase and less soluble, non-coagulable albuminous bodies are found. Similar deficiencies can also be produced by a short steep, and the author was led to the surmise that the external condition of the barley in the autumn might be different from that in the spring, so as to affect the absorption of water.

Examination of the barley dust in the bins and bags showed in all samples a rather considerable wax-content, reaching, in one case, 5-6 per cent. In the opinion of the author this wax hinders the absorption of water until during storage it is gradually detached from the grain.

The barley wax is quite similar to beeswax and seems to be a mixture of different kinds. It consists in the main of a softer wax melting at 40 degrees and a harder one melting at about 50 degrees. Since the barley wax, owing to this low melting point, may readily be influenced during the artificial drying of the barley, the author thinks there is reason to credit the wax with an influence on the different behavior of a dried barley in malting.—Woch. f. Brauerei.

ON BARLEY CULTURE.

In tropical countries generally two crops are harvested in one year, and in northern regions it grows and ripens in the short time of sixty days. In both extremes of temperature it matures with astonishing rapidity, thus escaping the droughts of summer and the frosts of winter. Barley succeeds best in soil of medium consistency, but accommodates itself to almost every variety of soil, except very moist ones. It endures a drought better than excessive moisture. Barley with a thick husk is grown on heavy soil; the lighter the soil, the lighter the husk, says Wm. H. Prinz in the American Brewers' Review, Chicago.

Any kind of crop rotation suits barley, but it should not be planted on freshly manured soil, and the ground should be well ploughed, pulverized and freed from weeds. Barley should not be sown broadcast; the drill is better, as the depth can be regulated. The lighter the soil, the deeper it should be planted, and uniform depth of all seed in the same field is required for securing a uniform shoot, uniform germination and a uniform forwardness in ripening.

Barley should be sown as early as possible, as soon as the ground is in condition, and not sown too thick. The better the land, the less seed should be sown. For late sowing more seed must be used. Thin sowing will produce a stronger crop and a more uniform grain.

The seed barley should be well graded, and it is not well to use the largest kernels for seed, if this is done year after year, as this will produce a barley that has fewer kernels to the ear. A medium size kernel will be better. It will produce the size wanted, together with a large number of

kernels to the ear. Care should also be taken to use a pure species. This can be done by selecting and hand picking. For heavy land, seed should be used that has been grown on light soil, and vice versa. It is also profitable to interchange seed from the South to the North.

After the seed is sown and dry weather sets in, the ground should be rolled so as to retain the moisture. Should heavy rains occur between the sowing of the barley and the time of its expected appearance above the surface, a crust or skin will be formed so hard as not to be easily penetrated by the young plant. This must be destroyed by gentle harrowing with a wooden-tooth harrow as soon as the land is dry. If the ground is heavy and moist, water furrows and drains will be a great help to carry off surplus moisture, but over-draining the land is not good.

Even in the best seasons barley requires more care in reaping and harvesting than any other grain. Barley should not be cut until it is ripe. It is often cut too early in order to keep its color bright and get a better price. A barley cut at the right time will have a light straw color and should bring a better price than the greenish-white barley, for it will make a better malt. In order to tell if barley is ripe, select a few of the greenest heads and see if by rubbing them between your hands the grain separates from the chaff, and if the kernels have passed the milky state, which, even if the upper part of the straw is still green and the lower part is quite yellow, shows that the nourishing and maturing communication from the soil is ended and the whole plant is fully ripe. Yet care must be used not to cut the crop a moment too early, or before it is fully ripe, for the increase of value during the three weeks preceding real maturity amounts to nearly one-half of the entire produce, and the increase during the last five or six days amounts to about four or five per cent.

The brewers and maltsters should stop paying a premium on the greenish-looking unmaturing bright barley, and pay more for a healthy yellow fully matured barley, which is far superior for malting purposes.

After cutting the barley care should be taken not to bind the sheaves too tight so as to allow the air to circulate freely, then put it in shocks and cap them with straw from the previous crop. Do not use the sheaves for capping, as the barley will not be uniform but will look mixed. After the barley is quite dry, stack it; and when thoroughly dry it should be thrashed, but not too close, as that would injure the germinating qualities. Sometimes barley is clipped to make it appear plump. This should not be allowed.

After thrashing, the farmer should clean the barley, then store it in a flat-bottomed bin, the floor to be about two feet from the ground, with plenty of openings on the side for the air to circulate freely when the barley is turned. Never let barley heat. Aerate it freely by turning it often, and clean it again before taking it to the country elevator. Here the grain should not be allowed to lie in the bin too long, especially in the forepart of the season, and it should be elevated over often.

When shipping barley to market be sure to get good cars and see that the roof is tight and the cars are well cleaned. If more than one grade of barley is shipped in the same car, put in a bulk head to keep them separate. Do not overload the cars, as the sampler cannot get into the car to take a sample, but will take what is called a "grab sample" at the door which, of course, will not be so good as the bulk of the barley. Through the shaking of the car in transit the light barley will get to the top, and no fair sample can be taken in this way. Also weigh your barley correctly, with as few drafts as possible, and do not mix, but send it straight; you will profit by it in the end.

Before unloading cars be sure to take a sample and compare with the sample it was bought by. If it is not up to the sample close up the car and make complaint. Barley buyers do not generally attach much weight to the grading by the state or board of trade, as the rules they go by are not correct, only weight and appearance being taken into account. The maltster should get up his own grades, and should grade all incoming barley in accordance with them, and not by the prices paid.

Keep close watch on the barley in the bins, especially in the earlier part of the season; and if the grain should get heated, aerate it by elevating it over frequently. You will thereby increase the germinating capacity and make a better and more even malt.

The Well County (Neb.) Board of Assessors have passed a resolution that wheat and flour stored in elevators be valued at 20 cents per bushel for wheat and 30 cents for flax for the current year.

OBITUARY

J. H. Blewett, of the firm of J. H. Blewett & Son, grain merchants, Gainesville, Tex., died last month.

W. L. Richardson, a grain buyer, was suffocated in bed during a fire that destroyed a small hotel building at Rome, Kan., last month.

Henry C. Burt, one of the oldest commission men in Cleveland, died on February 17. Mr. Burt was born in Pittsfield, Mass., in 1825, and had resided in Cleveland over half a century.

Adam Vencill died at his home in Normal, Ill., on February 24. Mr. Vencill was born in 1826 in Virginia, afterwards residing at LaFayette, Ind., where he was engaged in the grain trade.

A. W. Scott, bookkeeper with A. D. Thompson & Co., grain merchants of Duluth, Minn., died on March 4. Mr. Scott was well known in the grain trade, with which he had been connected for many years.

John Gibbons, a prominent grain commission man of Minneapolis, Minn., died on March 2 of tuberculosis. Mr. Gibbons was connected for a number of years with the firm of C. E. Lewis & Co.

Charles M. Morris, a former member of the Milwaukee Chamber of Commerce, died at Kent, Wash., on February 23. Mr. Morris was a prominent figure in the grain trade for many years, during which he was associated with the Milwaukee Elevator Co.

Allen C. Bates, secretary of the Mississippi Valley Elevator and Grain Co., St. Louis, Mo., committed suicide by shooting himself on February 14. An examination of the books showed a shortage of \$15,000. Bates was under a surety bond for \$25,000.

Charles Peterson, manager of the Western Grain Company's elevator at Lawrenceburg, Kan., was found in his office on the evening of February 22, with his skull crushed. His injuries were fatal. Apparently he had been assaulted and robbed by tramps.

J. B. Frost, a prominent grain merchant of Shelburne Falls, Mass., died on February 28, aged 84 years. Mr. Frost was a native of Buckland, Mass., and for the past 35 years had conducted a grain business in Shelburne Falls. About a year ago he was forced to retire on account of failing health, leaving the business in the hands of his son, E. C. Frost.

Jesse D. Myers, once a prosperous grain merchant and member of the Indianapolis Board of Trade, died on February 27, in a condition of extreme poverty. Mr. Myers was 76 years old, and went to Indiana from his native state of Pennsylvania at the close of the civil war. In the early '70's he did a prosperous business at McCordsville, Ind., where he conducted a flour mill, a sawmill and stave factory. In 1875 he opened an office as a grain merchant in the Indianapolis Board of Trade Building, where he did a large business until 1877, when he was ruined by the failure of a Boston house to whom he had sold a large amount of grain. Since then he has spent his time speculating in a small way at the bucket-shops and occasionally buying grain on the road for other dealers, but he never recovered his foothold and in his last illness was cared for by the Salvation Army, in which organization he had latterly taken a great interest.

Hon. J. White Belcher, for many years prominently connected with the grain business, died at his home at Randolph, Mass., on February 9, aged 82 years. Mr. Belcher was a native of Randolph and for nearly 20 years held the office of selectman, assessor and overseer of the poor. In 1855 he represented the town in the legislature and in 1875 and 1876, was elected senator for the third senatorial district, serving on many important committees. Mr. Belcher was appointed trial justice for the country of Norfolk for the seven years previous to the establishing of the East Norfolk district court at Quincy, when he was elected clerk of that court. Upon being elected to the presidency of the Norfolk Mutual Fire Insurance Co., and of the Dedham Mutual Fire Insurance Co., he resigned as clerk of the court. He was president of the Randolph Savings Bank, also president of the board of trustees of the Turner Free Library, and of the Central Cemetery Association. He had served as one of the water commissioners of the town, and for many years was a bail commissioner, resigning the latter office recently. In 1874 he was appointed by Governor Washburn as one of the directors of the state workhouse at Bridgewater,

and subsequently was appointed trustee of the state almshouse at Tewksbury and the state farm at Bridgewater, serving as chairman of the board of trustees at the time of his death.

Ex-Judge Thomas Burling Hull, for thirty-five years a member of the grain and commission house of T. B. Hull & Co. of Baltimore, and a former member of the Chamber of Commerce in that city, died suddenly on February 2, aged 71 years. Mr. Hull served as a member of the Appeal Tax Court of Baltimore under Mayor Hooper, and was reappointed by Mayor Hayes in 1900. In his earlier years he was a prominent figure in the public and commercial life of Baltimore.

PERSONAL

M. J. Hawley has left Winona, Minn., to live in Minneapolis, Minn.

Russell Sanford is in charge of the elevator at Hanford, Iowa, for Nye, Schneider, Fowler & Co.

Wm. Barr of Dakota, Ill., has been put in charge of the Bokhof Elevator at Rock City, Ill.

G. E. Bartholomew has succeeded W. A. Gleason as grain buyer for Bingham Bros. at Sanborn, Minn.

C. O. Peterson has succeeded V. T. Peterson as agent of the Amenias Elevator Co. at Atwater, Minn.

Roland Peterson has succeeded Chas. Asa in the management of the Denton Elevator at Talmage, Neb.

F. C. Shuster of Shickley, Neb., has taken charge of the Nebraska Grain Co.'s elevator at Ruskin, Neb.

Ernest Hallis of Bloomington, Ill., has been appointed manager of the Hasenwinkle Grain Co. at Heyworth, Ill.

B. B. Richards has succeeded G. W. Bradley as local manager of the Puget Sound Warehouse Co. at Athena, Ore.

A Mr. Bekker of Rogers, N. D., has succeeded Fred Gurlinger as agent at the Monarch Elevator at Oriska, N. D.

Geo. Marvin has resigned his position with the Canadian Elevator Co. at Warroad, Minn., to go to Winnipeg, Man.

A Mr. Berg of South Dakota has taken charge of the elevator at Pennock, Minn., formerly run by E. G. Freeman.

W. Shaw has severed his connection with the Prairie Elevator Co. at Almora, Minn. Frank Horn will be his successor.

Alfred Ecklund has accepted a position with the Gardell Elevator Co. of Minneapolis, Minn., as superintendent of construction.

Frank Foley has resigned his position in the elevator at Cloverdale, Iowa, to accept a position in an elevator at Sanborn, Iowa.

C. H. Blow has resigned his position as manager of the Thorpe elevator at Garretson, S. D. He is succeeded by P. A. Steinmetz.

O. A. Zimmer has resigned his position as agent for the Prairie Elevator Company at Richville, Minn. He has been succeeded by Fred Prentice.

E. S. Hoff, who has been in charge of the Victoria Elevator Co.'s elevator at Strasburg, N. D., has been transferred to the firm's house at Olivia, Minn.

John O'Malley, who has been in charge of the Nye-Schneider-Fowler's elevator at Monowi, Neb., has been moved to O'Neill, Neb., as manager at that point.

Alderman John T. Freeman, manager for the Minneapolis and Northern Elevator Co. at Grand Forks, N. D., has been promoted to the position of traveling superintendent.

Fred A. Thatcher, who has been employed for the past two and a half years as superintendent of the Potter Grain Co. at Shelburne Falls, Mass., has been transferred to a similar position in a new plant at Gardner to be known as the W. N. Potter Sons' Grain Co.

LIST OF ELEVATORS BUILT BY JOHN LUND COMPANY.

The following grain elevators were built by John Lund Co., Minneapolis, Minn., during 1905: Farmers' Elevator Co., Appleton, Minn., 20,000 bushels; Farmers' Elevator Co., Boyd, Minn., 20,000; E. E. Sidman, Wessington Springs, S. D., 20,000; Brady, Herried, S. D., 20,000; Walker & Hugck, Myra,

N. D., 20,000; Stewart Elevator Co., Osseo, Minn., 15,000; Stewart Elevator Co., Clearwater, Minn., 15,000; E. W. Closson & Co., Sholos, Neb., 20,000; Gust Halverson, Boyd, Minn., 20,000; Bird Island Farmers' Elevator Co., Bird Island, Minn., 30,000; Ireys Elevator Co., Garrison, N. D., 20,000; Twin City Elevator Co., Tagus, N. D., 20,000; Twin City Elevator Co., Palermo, N. D., 20,000; Cameron Bros., Kramer, N. D., 25,000.

For Sale

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

FEED BAGS.

Sewing twine, etc., for sale. Bottom prices.
WILLIAM ROSS & CO., 57 S. Water St., Chicago.

MONEY IN YOUR POCKET.

If you want to change that second-hand machine into money advertise it in this department. Or if you have a grain elevator to sell or rent, or wish to buy, make your wants known through these columns.

UNUSUAL OPPORTUNITY.

A well-established feed, grain, hay, straw and poultry supply business for sale. An exceptional chance for an energetic man. Good location. Buildings, private switch and ample facilities for increasing the business. Full particulars on request. Address

A, Box 156, Poughkeepsie, N. Y.

ELEVATORS

FOR SALE.

Our line of elevators, at cost, as our other business requires all our attention.

E. R. ULRICH & SONS, Springfield, Ill.

FOR SALE.

If you are in want of a good elevator, cheap, doing a good business in all lines, call on

J. F. CARTWRIGHT CO., Davison, Mich.

FOR SALE, RENT OR EXCHANGE.

Good mill and elevator located in fine wheat country. Favorable terms. Address

F. S. R., Box 1, care "American Elevator and Grain Trade," Chicago, Ill.

FOR SALE.

Good elevator, in live Wisconsin town, surrounded by rich farming country; 25,000 bushels' capacity. Might exchange for western land. Address

WESTERN LAND SECURITIES CO., 143 Endicott Arcade, St. Paul, Minn.

FOR SALE.

Old established grain business less than 100 miles from Chicago; 90,000 bushels' capacity. Business, as well as buildings, in first-class condition. Good reasons for selling. Full particulars by addressing

ILLINOIS, Box 1, care "American Elevator and Grain Trade," Chicago, Ill.

GRAIN AND SEEDS

WRITE OR TELEGRAPH.

White Wheat and Utah Alfalfa seed for sale. If in need of either, write or telegraph

SAM WILLIAMSON, Salt Lake City, Utah.

WESTERN HEADQUARTERS

For Alfalfa, Clover, Timothy, Millet, Sorghum and Kaffir Corn. Car lots. Write for prices.

MISSOURI SEED CO., Kansas City, Mo.

MACHINERY

FOR SALE.

Lambert Gasoline Engine, 20 horsepower, in fine condition. For particulars, address

A. J. MONROE, Arthur, Ill.

FOR SALE.

Ten-horsepower boiler and steam engine for sale cheap. Complete outfit. Address

CHAS. A. PFUND, Luverne, Iowa.

FOR SALE.

Portable dump for sale. Will handle any kind of grain well and quickly. Just the thing for cribbing corn. Address

WOODBURY & FILES, Muncie, Ind.

FOR SALE.

One Richmond-Draver Dust Collector.
One No. 1 Howes Warehouse Separator.
One 20-horsepower Atlas Engine and Boiler.
H. O. GRAVES, 535 South Elm St., Henderson, Ky.

FOR SALE.

Gasoline engines; one 54-horse Fairbanks-Morse; one 28, one 16, one 12, 2, 8 and 25 horsepower Sterling Charter. All sizes and prices in small sizes.

A. H. McDONALD, 38 W. Randolph St., Chicago.

FOR SALE OR TRADE.

A 10-horsepower steam engine, in good condition, and one boiler feed pump. Will trade for a 4 to 8 horsepower gas or gasoline engine, or what have you for trade? Address

P. O. BOX 525, Eaton, Ind.

FOR SALE.

New Invincible Oat Clipper, in perfect condition, 200 bushels per hour; scarcely used. Also second-hand Western Corn and Oats Cleaner, 1,500 bushels per hour; good condition. Address

KIRKPATRICK, LACKLAND & CO., Chenoa, Ill.

FOR SALE.

One 15-horsepower electric motor. One 12-horsepower steam engine. One 7-horsepower gasoline engine, also several larger sizes. One 6x4x6 and one 10x7x12 Duplex Steam Pumps. All thoroughly overhauled and at bargains.

ENTERPRISE MACHINE CO., Minneapolis, Minn.

GASOLINE ENGINES FOR SALE.

3 HP Otto, \$85. 4 HP Colborne.\$ 95.
6 HP Webster, \$175. 8 HP Otto..... 225.
10 HP Otto with pump attached..... 400.
12 HP Webster 225.
15 HP White & Middleton..... 375.
35 HP Otto, \$600. 60 HP Otto..... 1,200

COLBORNE MFG. CO., 35 E. Indiana St., Chicago.

SCALES

SCALES FOR SALE.

Scales for elevators, mills, or for hay, grain or stock; new or second-hand at lowest prices. Lists free.

CHICAGO SCALE CO., 299 Jackson Boulevard, Chicago, Ill.

"THE STANDARD" SCALES.

For all purposes. Portable, Wagon, Hopper and Track Scales. Guaranteed durable and accurate; quality higher than price. Not in the trust.

THE STANDARD SCALE & SUPPLY CO., Station U., Chicago, Ill.

GRAIN WANTED

GRAIN WANTED.

Wanted—Feed barley and new No. 2 and No. 3 rye.

W. H. SMALL & CO., Evansville, Ind.

Miscellaneous Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

SECOND-HAND BAGS WANTED.

Any kind, any quality, anywhere. I pay freight. Write for prices.

GEO. T. KING, Richmond, Va.

HELP WANTED

WANTED.

Miller who can take charge of an up-to-date 60-barrel mill. Must have from \$1,000 to \$2,000 to invest in same. For particulars, write

THE ELYRIA MILLING CO., Elyria, Ohio.

WANTED.

Competent grain inspector, one familiar with terminal market conditions preferred. State age, experience and salary expected. Address

C., Box 2, care "American Elevator and Grain Trade," Chicago, Ill.

ELEVATOR OR MILL MEN WANTED.

We have on our list several mills and elevators owned by non-residents who want to put them in operation, and we wish to correspond with elevator men, millers, managers, office men, bookkeepers who are interested in good elevator or milling propositions.

IOWA MILL BROKERS, Independence, Iowa.

SITUATIONS WANTED

WANTED.

Position as superintendent or manager of terminal elevator or line of elevators, by young man who has had the experience and is at present superintendent of terminal elevator in the East. Address

H. E. G., Box 2, care "American Elevator and Grain Trade," Chicago, Ill.

HAY WANTED.

GOOD HAY.

Will bring a good price on our market. Send us your next consignment. Our specialty.

ST. LOUIS HAY & GRAIN CO., St. Louis, Mo.

ELEVATORS WANTED

WANTED.

Elevator or mill and elevator for good improved Illinois or Iowa farm. Address

IOWA, Box 1, care "American Elevator and Grain Trade," Chicago, Ill.

ROOFING AND SIDING.

SYKES STEEL ROOFING CO.

611 So. Morgan Street, Chicago

MAKERS OF FIREPROOF WINDOWS

WE manufacture all gauges of corrugated iron, either painted or galvanized. We make Patent Cap Roofing, Roll Cap Roofing, "V" Crimped Roofing, Metal Ceilings, etc., etc.

We make a specialty of

Corrugated Iron and Metal Roofing For Grain Elevators

And take contracts either for material alone or job completed. Write us for prices. We can save you money.

DECORAH, IOWA**DWARF ESSEX RAPE**

Name quantity wanted and let us make you lowest delivered price.

Also Clovers, Pure Seed Flax and Timothy Also Field Seeds generally.

Get our prices before buying.

N. H. ADAMS & SON, Decorah, Ia.

HAY RECEIVERS


**We Guarantee Top Values
On All Sales of
HAY, STRAW, ETC.**

Liberal advances paid and prompt sales assured. . .
Write us

Geo. Middendorf Co.
135-137 S. Water St.
Established 1871 CHICAGO

GRAIN RECEIVERS**BATTLE CREEK**

McLane, Swift & Co.,

Buyers
of

GRAIN

Battle Creek,
Mich.

CORRESPONDENCE FROM EASTERN BUYERS SOLICITED.

BOSTON

Wheat
A
Specialty

A. P. Aldrich & Sons
Incorporated. Capital, \$150,000
Hay, Grain, Flour
201 Chamber of Commerce
Established 1882 BOSTON, MASS.

DECATUR

OUR BIDS ARE GOOD ONES.

KANSAS CITY

Geo. A. Adams Grain Co.

KANSAS CITY, MO.

Consignments and orders for future delivery solicited

Milling Wheat a Specialty

GRAIN RECEIVERS**PITTSBURG**

HAY

The Best Market in the World

Our superior facilities and connections with large buyers of HAY and GRAIN enable us to get the best prices. Liberal advances made on shipments.

Daniel McCaffrey's Sons Co.
Pittsburg, Pa.

References: Duquesne National Bank.
Washington National Bank.
In the one spot 38 years.

GRAIN

N. MORTON

RECEIVER AND SHIPPER

GRAIN, HAY AND FEED

Consignments Solicited

Member: National Hay Association; Pittsburg Grain and Flour Exchange.

207 Grain Exchange Bldg., Pittsburg, Pa.
Reference, Monongahela National Bank

W. C. DOUGLAS

FEED AND GRAIN BROKER

Empire Building - Pittsburg, Pa.

Exclusive control of a good account desired of Western Pennsylvania

Reference: The Diamond National Bank

GOSHEN**JOHNSON & SON**

GOSHEN, IND.

Track Buyers Oats, Ear Corn, Rye, Buck-wheat, Hay and Straw

Let us hear from you and we will make you track bids regularly. We are always in the market.

MINNEAPOLIS

P V F. H. PEAVEY & CO.
MINNEAPOLIS, MINN.
GRAIN RECEIVERS
Consignments Solicited.

MILLING WHEAT A SPECIALTY

J. R. MARFIELD, Pres. WM. GRIFFITHS, Vice-Pres. and Mgr.
C. D. TEARSE, Sec'y and Treas.

MARFIELD-GRIFFITHS CO.
GRAIN COMMISSION

OFFICES: CHICAGO MILWAUKEE
MINNEAPOLIS DULUTH

Consignments and Orders for Future Delivery Solicited.
PRIVATE WIRES—CHICAGO AND NEW YORK
511-514 New Chamber of Commerce, Minneapolis, Minn.

INDIANAPOLIS

The Bassett Grain Co.
INDIANAPOLIS

Telephones 80 Rooms 33 and 35 Board of Trade

W. J. RILEY

W. E. JARBOE

W. J. Riley & Co.

22 Board of Trade, Indianapolis, Indiana

Grain, Flour and Feed

Track bids made on application
We want your trade

Let us have your consignments
It will pay you to deal with us

NEW OR OLD PHONE 3434

MILWAUKEE

B. G. ELLSWORTH, President H. H. PETERSON, Vice-President
E. H. HIEMKE, Secretary

L. Bartlett & Son Co.

GRAIN COMMISSION MERCHANTS

Room 23 Chamber of Commerce Building
MILWAUKEE, WIS.

O. MOHR, Mgr.

G. C. HOLSTEIN, Sec'y-Treas.

Mohr-Holstein Commission Co.

29 Chamber of Commerce
MILWAUKEE

Sample Grain a Specialty

BRANCH OFFICES AT CHICAGO, MINNEAPOLIS

ESTABLISHED 1864

I. H. Lowry & Co.

64 Mitchell Building, MILWAUKEE, WIS.

GRAIN COMMISSION MERCHANTS

Branch Offices at CHICAGO, MINNEAPOLIS

We solicit your consignments

DETROIT

A. S. DUMONT

R. C. ROBERTS

A. E. O'DONNELL

Dumont, Roberts & Co.
RECEIVERS GRAIN SHIPPERS

Chamber of Commerce
DETROIT, MICH.

Merchants Exchange
DECATUR, ILL.

Consignments Solicited.

Ask for our Bids and Quotations.

CAUGHEY & CARRAN

DETROIT, MICH.

Grain and Seed Merchants and Commission

OUR SPECIALTY: OATS AND CLOVER SEED

We handle Beans, Barley, Rye, Corn, Wheat. Try us. Liberal advances.

OFFICES: 620 to 624 Chamber of Commerce
ELEVATOR and SEED HOUSE: Corner 14th and Baker Sts.

HOUSTON

FRANK THOMS & CO.

Commission Merchants

We want your consignments of Grain, Feed, Hay and Cotton.

We want your orders for Cotton Seed Hulls, Cotton Seed Meal, Cotton Seed Cake, Texas Seed Oats.
Correspondence solicited.

1402 Congress Ave.

HOUSTON, TEXAS

NEWPORT NEWS

DABNEY BROKERAGE CO.

GRAIN, HAY, PRODUCE

Receivers, Shippers

Domestic and Export

NEWPORT NEWS

VIRGINIA

GRAIN RECEIVERS

TOLEDO

ESTABLISHED 1846

C.A. KING & CO.

THE GOLDEN RULE

GRAIN AND CLOVER SEED DEALERS
OF TOLEDO, OHIO

SPECIAL MARKET AND CROP REPORTS FREE

BE FRIENDLY

WRITE OCCASIONALLY

The J. J. Coon Grain Co.

GRAIN, SEEDS AND FEED

61 Produce Exchange

TOLEDO, OHIO

CONSIGNMENTS SOLICITED CASH AND FUTURES

REYNOLDS BROS.

TOLEDO, O.

Buy and Sell Grain

SELL US YOURS

If you don't get our bids, ask for them. Consignments always welcome. Consign us yours.

J. F. ZAHM F. W. JAEGER F. MAYER

ESTABLISHED 1879

J. F. ZAHM & CO.

GRAIN and SEEDS

TOLEDO, OHIO

Handling consignments and filling orders for futures

OUR SPECIALTY

SEND FOR OUR DAILY CIRCULAR; IT'S FREE

ST. LOUIS

CONNOR BROS. & CO.

GRAIN AND HAY

ST. LOUIS

MEMBERS OF GRAIN DEALERS' NATIONAL ASS'N

Daniel P. Byrne & Co.

General Commission Merchants

SUCCESSORS TO

Redmond Cleary Com. Co.

Established 1854

Incorporated 1887

Grain, Hay, Mill Feed and Seeds

Chamber of Commerce, St. Louis, Mo.

PEORIA

ESTABLISHED 1875

P. B. & C. C. MILES

Grain Commission Merchants

BUYERS AND SHIPPERS

36-37 Chamber of Commerce, PEORIA, ILL.

A. G. TYNG, Jr.

D. D. HALL

TYNG, HALL & CO.

Grain and Commission Merchants

ROOMS 33 AND 35 CHAMBER OF COMMERCE
PEORIA, ILLINOIS

Van Tassell Grain Company

GRAIN COMMISSION MERCHANTS

BUYERS and SHIPPERS

43 AND 45 CHAMBER OF COMMERCE
PEORIA, ILLINOIS

LANCASTER

DO YOU REALIZE

That country trade always pays you
best in every way?We work a large country business.
See the point?

JONAS F. EBY & SON, LANCASTER, PA.

BUFFALO

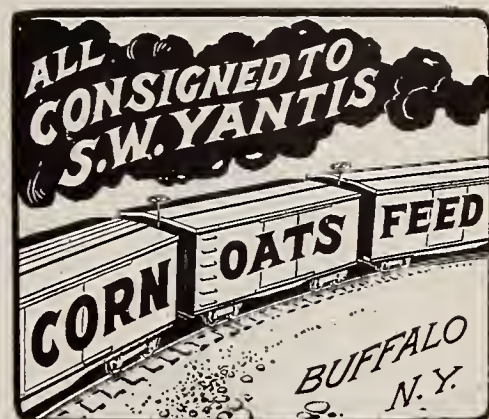
W. W. ALDER

T. J. STOFER

Alder & Stofer

COMMISSION
MERCHANTS

We do not buy any grain, but handle on commission, and solicit your Buffalo consignments.

83 Chamber of Commerce,
BUFFALO - - NEW YORK

Consign Your Grain to

BURNS BROS.

44 Board of Trade, Buffalo, N. Y.

QUICK SALES. IMMEDIATE RETURNS. RELIABLE REPORTS.

Members Grain Dealers' National Association.

PHILADELPHIA

ESTABLISHED IN 1863

E. L. ROGERS & CO.

Receivers and Exporters

Commission Merchants

Grain, Feed, Hay, Straw, Etc.

358 Bourse Building

PHILADELPHIA, PA.

L. F. MILLER & SONS,

RECEIVERS AND SHIPPERS OF

Grain, Feed, Seeds, Hay, Etc.

OFFICE: 2931 N. BROAD ST., PHILADELPHIA, PA

CONSIGNMENTS SOLICITED. Special attention given to the
handling of CORN AND OATS.REFERENCES { Manufacturers' National Bank, Philadelphia, Pa.
Union National Bank, Westminster, Md.

FREMONT

Nye, Schneider, Fowler Co.

GRAIN DEALERS

Corn for Feeders. Milling wheat a specialty.
both winter and spring. Write for samples
and prices. Shipment via C. & N. W. R. R.

General Offices - - - FREMONT, NEB.

CAIRO

H. L. Halliday Milling Co.

RECEIVERS AND SHIPPERS

CORN-WHEAT-OATS

CAIRO,

ILLINOIS

CINCINNATI

The METZGER-HILL CO.

Grain—Hay

Receivers

Shippers

CINCINNATI

OHIO

GRAIN RECEIVERS

CHICAGO

E. GERSTENBERG

A. GERSTENBERG

Gerstenberg & Co.

Commission Merchants

HANDLE ALL GRAINS AND SEEDS

Barley a Specialty

OUR SERVICE WILL PLEASE YOU
CHICAGO

Van Ness Brothers
Grain Commission

Chicago Office
640 Postal Telegraph Bldg.
Peoria Office
7-9 Chamber of Commerce Bldg.

W. H. MERRITT & CO.

Grain Buyers and Shippers

CORRESPONDENCE SOLICITED

87 Board of Trade, CHICAGO, ILL.

CHICAGO

GEO. S. DOLE, Pres.

H. N. SAGER, Sec.

J. H. DOLE & CO.

(Established 1852)

Commission Merchants, Grain and Seeds

We solicit your
CONSIGNMENTS
and orders in futures

226 La Salle Street. - - - CHICAGO

H. HEMMELGARN.

P. H. SCHIFFLIN.

H. HEMMELGARN & CO.,

COMMISSION
MERCHANTS.

Grain, Seeds and Provisions.

Orders for futures carefully executed.
Consignments and correspondence solicited.

515-518 Postal Tel-graph Bldg. 44-46 Chamber of Commerce,
CHICAGO. PEORIA.

Good Prices

Prompt Returns

Very Best Attention

and **W. A. FRASER CO.**

"They're Running Mates"

MINNEAPOLIS CHICAGO MILWAUKEE

F. E. WINANS

Grain and Field Seeds Commission Merchant

BARLEY, OATS, WHEAT, CORN, RYE
TIMOTHY, CLOVER, FLAX, HUNGARIAN MILLET

6 SHERMAN STREET, CHICAGO

Write us freely on all matters pertaining to grain and field seeds.
Your questions fully and cheerfully answered; particular attention paid to timothy seed and grain by sample. Consignments and speculative orders receive our careful personal attention.

CHICAGO

You do good business when you ship to

M. E. COOKE

Grain and Hay Commission Merchant

85-86 Board of Trade, CHICAGO
Write for my track bids.

Grain Speculation Not A Fine Art

"A BOOK"

Send Postal requesting same to

E. W. WAGNER

99 Board of Trade
CHICAGO

Member Chicago Board of Trade

WRITE FOR MY

"Grain Trade Talks"

Edward G. Heeman.

159 La Salle St., CHICAGO

Rotunda National Life Building.
All business transacted through and confirmed by
Chas. W. Gillett.

My "GRAIN TRADE TALKS" are published in full
in the Chicago Evening Post and Chicago Journal.
Will send either paper free to customers.

TELEPHONE HARRISON 1504

ARTHUR SAWERS

GRAIN MERCHANT

510 POSTAL TELEGRAPH BUILDING CHICAGO.

J. ROSENBAUM GRAIN CO.

(INCORPORATED)

GRAIN MERCHANTS
CHICAGO

RUMSEY & COMPANY

COMMISSION MERCHANTS

GRAIN, HAY, SEEDS AND PROVISIONS

CASH AND FUTURE DELIVERIES

97 BOARD OF TRADE, CHICAGO

Receiving a Specialty

Every Department Fully Manned by Men of Ability and Long Experience

J. H. WARE E. F. LELAND
C. W. LEE F. J. FAHEY

Consign your grain and seeds and send your
Board of Trade Orders to

WARE & LELAND,

400-410 Postal Telegraph Bldg., Chicago.

GRAIN, PROVISIONS,
STOCKS AND COTTON.

Write for our Daily Market Letter.
Your interests are our interests.

Special attention given to cash
grain shipments.

GRAIN RECEIVERS

CHICAGO

A. L. SOMERS, Pres. CHAS. A. JONES, Sec'y and Treas.

SOMERS, JONES & CO.

(Incorporated)

COMMISSION MERCHANTS

544-545 Postal Telegraph Bldg., CHICAGO
GRAIN AND FIELD SEEDS

CONSIGNMENTS AND ORDERS FOR FUTURE DELIVERY
SOLICITED. :: LIBERAL ADVANCES ON CONSIGNMENTS

William H. Lake Jno. A. Rodgers Edw. P. McKenna

W. H. LAKE & CO.

Commission Merchants

Grain, Provisions, Stocks

6 Sherman Street - - CHICAGO

MEMBERS: Chicago Board of Trade; Chicago Stock Exchange;
New York Produce Exchange; St. Louis Merchants' Exchange;
Milwaukee Chamber of Commerce.

W. J. THOMPSON & CO.

Successors to
B. S. SANBORN & CO.
Members Chicago Board of Trade

Commission Merchants
GRAIN - SEEDS - HAY

Consignments and orders
for futures solicited.

263-265 La Salle Street
CHICAGO

J. C. Shaffer & Co.

Buyers and Shippers

— of Grain —

240 La Salle St. Chicago

E. W. BAILEY & CO.

Commission Merchants

GRAIN, SEEDS AND
PROVISIONS

72 Board of Trade, CHICAGO

ARMOUR GRAIN CO.

205 LA SALLE STREET

CHICAGO

GRAIN BUYERS AND DEALERS

W. F. JOHNSON GEO. A. WEGENER

W. F. JOHNSON & CO.

GRAIN, SEED AND PROVISIONS

Commission Merchants

Orders for future delivery carefully executed.
Consignments and correspondence solicited.

Room 59, Board of Trade CHICAGO

FREEMAN BROS. & CO.

Successors to H. H. FREEMAN & CO.

HAY, STRAW AND GRAIN

COMMISSION MERCHANTS

Correspondence and Consignments 66 BOARD OF TRADE
Solicited. Market Reports on CHICAGO, ILL.
Application.

CHICAGO

CHICAGO
341 Postal Telegraph Bldg.

MILWAUKEE
26 Milwaukee National Bank Bldg.

W. J. ARMSTRONG CO.

Commission Merchants

HAY and GRAIN

Experienced Men in Both Markets

MEMBERS

Milwaukee Chamber of Commerce National Hay Association
Chicago Hay Receivers' Association

H. M. PAYNTER

GRAIN COMMISSION

Special attention given consignments of grain
and seeds.

Orders in futures carefully executed.

5 and 7 Board of Trade, Chicago.

All business transacted through and confirmed
by Milmine, Bodman & Co.

CRIGHTON & CO.

OUR BUSINESS: OUR ADDRESS:
Grain Commission Royal Insurance Bldg.
Shipments Given Orders for Futures
Personal Attention Solicited

CHICAGO

WRIGHT, BOGERT & CO.

COMMISSION MERCHANTS

Correspondence and Consignments Solicited
Orders for future delivery carefully executed

Screenings and Mill Feed

306-308 Postal Telegraph Building
CHICAGO

WARNER & WILBUR,

GENERAL COMMISSION
MERCHANTS

CONSIGNMENTS AND ORDERS IN FUTURES SOLICITED

417 and 419 Royal Insurance Building

Established 1879 CHICAGO, ILL.

HULBURD, WARREN & CHANDLER

Stock Brokers and Commission
Merchants, Grain and Provisions

Business Solicited in any Department. Receiving,
Shipping, Futures.

212-214 La Salle St., CHICAGO

WHITE & RUMSEY GRAIN CO.

SHIPPERS

Owners and operators Prairie State Transfer
Elevator at Kankakee, Ill.

97 Board of Trade, CHICAGO

POPE AND

WILLIAM J. POPE, Pres.
W. N. ECKHARDT, secy

ECKHARDT CO.,

COMMISSION MERCHANTS

GRAIN
SEEDS
PROVISIONS

317-321 Western Union Building,
CHICAGO.

CHICAGO



COMMISSION MERCHANTS

We Have

every facility for handling
grain on consignment or for
future delivery.

Experienced Men on 'Change
Ample Financial Resources
Thirty Years' Experience

77 Board of Trade

ESTABLISHED 1852

T. D. RANDALL & CO.

COMMISSION MERCHANTS

HAY, GRAIN AND FLOUR

92 Board of Trade Bldg., CHICAGO

Members

CHICAGO
BOARD
OF TRADE
CHICAGO
STOCK
EXCHANGE

Ground Floor

STOCKS
BONDS
GRAIN

112

La Salle St.

VON FRANTZIUS & CO.

ASK FOR OUR STATISTICAL CARDS

CLEVELAND

THE UNION ELEVATOR CO.

BUYERS AND SHIPPERS

WHEAT, CORN, OATS, HAY AND STRAW

OUR SPECIALTY: RECLEANED ILLINOIS SHELLED CORN
CLEVELAND, O.

NEW YORK CITY

BROOKLYN HAY & GRAIN CO.

HAY, STRAW AND GRAIN

COMMISSION MERCHANTS

ON ALL MARKETS IN NEW YORK HARBOR

Office: Borough of Brooklyn, New York

GEO. N. REINHARDT & CO.

MELROSE STATION, NEW YORK CITY



We sell on Commission and buy direct.

HAY GRAIN AND FEED.

Storage capacity 8,000 bales, 30,000 bushels.
Let us know what you have to offer.

A Low Insurance Rate

is based upon certain features of elevator construction. Charges are made to the low rate for defects. When building new or remodeling, many defects can be avoided if you know how.

Send for a copy of our
Rate Specifications for
Country Elevators

It will show how you can make
your own rate and obtain a low
cost for insurance in the



MILL OWNERS'
MUTUAL FIRE INSURANCE
COMPANY

DES MOINES, IOWA

Insures Mills, Elevators, Warehouses
and Contents.

Oldest Flour Mill Mutual in America

SAVED TO MEMBERS
OVER \$1,300,000

J. G. SHARP, Secretary

INSURANCE

ON GRAIN ELEVATORS AND CONTENTS

Is furnished at cost by the
MILLERS' NATIONAL INSURANCE CO.
of Chicago

It is a Mutual Company which insures
more mills and grain elevators than any
other company in the United States.

It has been in business 27 years and its
average annual cost for insurance to mutual
policyholders has been about one-half
of the board rates of stock companies.

It had admitted assets, January 1, 1903,
of \$3,380,676.56, and a net cash surplus
over all liabilities of \$466,594.95. Losses
paid, \$3,939,221.28.

The same conservative management
which has directed the Company's affairs
all through its prosperous existence will
be continued.

Before placing your insurance, write to
the Company at No. 205 La Salle Street,
Chicago, for a copy of the circular and
statement, which fully explains the Com-
pany's method of insuring your class of
property on the mutual plan. If your risk
is up to the required standard you cannot
afford to insure in any other company.

W. L. BARNUM Secy.

Millers' Mutual Fire Insurance Association of Illinois

ALTON, ILL.

Good, but cheap, insurance on Elevators,
Mills, Grain Warehouses and their
Contents.

We make a specialty of writing Grain
that you carry for a short term.

Premium Notes in Force, \$1,200,000.00
Cash Surplus, . . . 225,000.00

A. R. MCKINNEY, Secretary.

H. D. CUMMINGS & CO.,
159 La Salle Street, Chicago Agents.

\$2.50 American Miller
AND
American Elevator
and Grain Trade
FOR ONE YEAR

Insurance on Elevators and Grain!

24 Years of Successful Business

We Have--Paid Losses \$1,300,000.00. Total Assets \$1,700,000.00. Net Cash Surplus \$290,000.00.

Michigan Millers Mutual Fire Insurance Co.
OF LANSING, MICHIGAN.

THE Large Profits IN Elevator Insurance

heretofore paid by owners and op-
erators of grain elevators to the
stock companies are turned into
the grain men's pockets, by the

ELEVATOR UNDERWRITERS

For sound insurance at cost,
address

U. S. EPPERSON

Attorney and Manager

409 Kemper Bldg. Kansas City, Mo.

The Illinois Central's "Cuban Special"

TO NEW ORLEANS

From Chicago, St. Louis makes
direct connection with new and
finest of Steamship Service to HA-
VANA. Through tickets to Havana
admit of stopover at New Orleans.

Superior Service, Both Rail and Water

For particulars, trains, etc., address

W. H. Brill, District Passenger Agt.
99 Adams Street, CHICAGO
Depot, 12th Street and Park Row

SEEDS

THE ALBERT DICKINSON CO.
DEALERS IN.....

GRASS SEEDS, CLOVERS, FLAX SEED, LAWN GRASS, BEANS,
PEAS, POP CORN, BIRD SEEDS, BUCKWHEAT, BAGS, ETC.
CHICAGO, ILL. BRANCH: MINNEAPOLIS, MINN

It Seems Impossible



To those who are not yet acquainted with the size and character of our new
equipment for the manufacture of Elevating, Conveying and Power-Transmitting
Machinery, it seems impossible that we **can**, as we claim, put on the market a line of
absolutely the highest quality at absolutely the lowest prices.

But these are plain truths and examination of our prices in fair comparison with
others will simply serve to bear us out.

We not only maintain an unusually high standard of workmanship and finish
while reducing cost of production to a minimum, but our corps of experienced
designers are constantly introducing new and exclusive devices. We were the first
to introduce ring-oiling bearings in this class of machinery, and several other notable
improvements are credited to this house.

Our man will call whenever you say so—address our nearest office.



Bison and Baby Bison Horizontal Corn and Cob Crusher

The Bison machines are well named—they have the strength of the sturdy bison himself, and
can be depended upon to withstand the most severe service.

Practical experience has proven them the best appliances ever invented for crushing ear corn,
corn cobs, lime, plaster, soda, oyster shells, charcoal, oil cake and substances of a similar character.
One salient point of merit is the impossibility of choking—a point possessed by no other
crusher on the market. The largest ears cannot catch and bridge over the hopper, which has an
especially wide mouth.

It is only necessary to keep the hopper filled, as it requires no other attention and takes care
of everything that drops into it.

The Bison Crusher rapidly grinds either wet or dry corn.

It requires less power for a given capacity than any other machine. It is simple to erect,
easily and quietly operated, and causes absolutely no jar.

The Wolf Company

BOX 538

Chambersburg, Pa.

Philadelphia Branch Shops, 521 N. 23d St., Philadelphia, Pa.

GENERAL SOUTHERN OFFICE: 505 Willcox Bldg., Nashville, Tenn.
GENERAL NORTHERN OFFICE: 309 S. Third Street, Minneapolis, Minn.
PACIFIC COAST DEPARTMENT: 323 Alisky Bldg., Portland, Oregon

AIR DRIED GRAIN

(NOT KILL DRIED)

The Ellis Drier insures even and perfect drying at low temperatures. The only machine where the air passes through the grain uniformly and reaches every kernel. Built in all sizes from five bushels' capacity and up.

"Ellis Grain Drier"

Macdonald Engineering Co.

Sole Manufacturer

549-553 Monadnock Bldg.

Chicago

To Save Heavy Discounts

ON YOUR
GRAIN FOR THE
NEXT SIX MONTHS
GET A

Hess Grain Drier

Used Everywhere

Free Booklet

Hess Warming and Ventilating Co.

710 Tacoma Bldg., Chicago



Fairbanks Scales

won the Grand Prize at the Louisiana Purchase Exposition, St. Louis, 1904, for the very reason that you ought to use them,

They Are the Best

Fairbanks-Morse Gasoline Engine is the most economical power for Elevator or Mill use. By using it one man can often run the whole elevator.

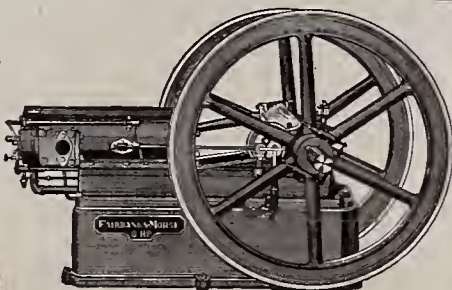
Send for Catalogue No. 544.

Fairbanks, Morse & Co.

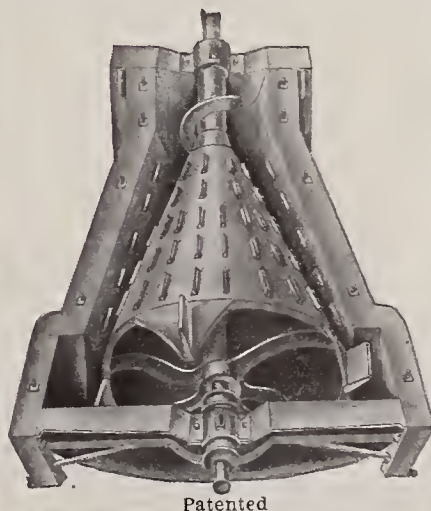
SALESHOUSES

Chicago, Ill.
Detroit, Mich.
Cincinnati, O.
Cleveland, O.
Indianapolis, Ind.
St. Louis, Mo.
St. Paul, Minn.
Louisville, Ky.

Minneapolis, Minn.
Kansas City, Mo.
Omaha, Neb.
Denver, Colo.
San Francisco, Cal.
Los Angeles, Cal.
Salt Lake City, Utah
Portland, Ore.



INTERIOR VIEW OF The United States Corn Sheller



See for yourself how it is constructed, making it the cheapest sheller you can buy. Blades don't crack corn, but deliver the corn, cob, silks and shucks in a most satisfactory way, right and left hand over, or same from underneath, thus avoiding a cross drive belt.

Stand at the Hopper End

when deciding which you want, and state whether pulley is to be on hopper or drum end. This interior view is from our largest size; guaranteed 1,500 bushels per hour. Quick shipment of any size desired.

The B. S. C. Pat. Chain Drag

is the only satisfactory Feeder.

Our Water Tight Boot

which can be sunk into the ground to a depth of 18 inches, is the proper elevator boot to work with our Sheller and Chain Feeder. Yes, and don't forget our Safety Wagon Dumps when planning your elevators.

Complete equipments at lowest prices for first-class machinery.

Send for catalogue and discount card

B. S. CONSTANT CO.
BLOOMINGTON, ILL.

MACDONALD ENGINEERING CO.

ENGINEERS AND CONTRACTORS



650,000-Bushel Steel Elevator, under construction. This bin story was erected in 30 working days.

Builders of Grain Elevators in Wood, Steel, Concrete or Combination Materials.

549-51-52-53 Monadnock Building, Chicago, Ill.

JOHN S. METCALF CO.

ENGINEERS—GRAIN ELEVATOR BUILDERS

We make a Specialty of Furnishing Plans and Specifications.

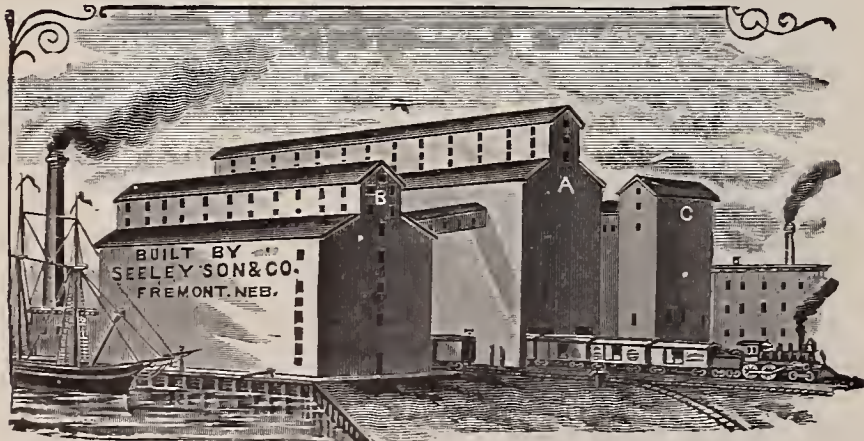
619-623 The Temple, Chicago, Ill.

A partial list of elevators which have been designed and constructed by us and under our supervision. Bushels.

MANCHESTER SHIP CANAL CO.'S ELEVATOR, Manchester, Eng.	1,500,000
GRAND TRUNK ELEVATOR No. 3, Portland, Me.	1,500,000
GRAND TRUNK ELEVATOR No. 2, Portland, Me.	1,000,000
NORTHERN GRAIN CO., Manitowee, Wis.	1,400,000
BURLINGTON ELEVATOR, St. Louis, Mo.	1,300,000
UNION ELEVATOR, East St. Louis, Ill.	1,100,000
EXPORT ELEVATOR, Buffalo, N. Y.	1,000,000
J. R. BOOTH ELEVATOR, Parry Sound, Canada.	1,000,000
CHESAPEAKE & OHIO RAILWAY ELEVATOR, Newport News, Va.	1,000,000
SOUTHERN PACIFIC TERMINAL CO.'S ELEVATOR, Galveston, Tex.	1,000,000
BURLINGTON ELEVATOR, Peoria, Ill.	500,000
CANADA ATLANTIC RAILWAY ELEVATOR, Coteau Landing, Que.	500,000
HALLIDAY ELEVATOR CO.'S ELEVATOR, Cairo, Ill.	500,000
PERE MARQUETTE RAILROAD CO.'S TRANSFER ELEVATOR, Ludington, Mich.	150,000
GRAND TRUNK TRANSFER & CLIPPING ELEVATOR, Chicago, Ill.	100,000
MISSOURI PACIFIC CONCRETE & WOOD ELEVATOR, Kansas City.	1,000,000
GOEMANN GRAIN CO.'S TRANSFER ELEVATOR, Mansfield, Ohio.	100,000
GEO. T. EVANS MILLING CO.'S CONCRETE ELEVATOR, Indianapolis	85,000

SEELEY, SON & CO.,

Fremont, Neb.



Architects and Builders

OF ALL KINDS OF

GRAIN ELEVATORS.

Witherspoon-Englar Company

—Designers and Builders of—

FIREPROOF Grain Elevators



Cut shows H. W. Rogers & Bro.'s Elevator at Harvey, Ill. Operating house burned Sept. 30, 1905. Tile tanks, built by us, with contents were uninjured. This shows the advantages of hollow tile bin construction.

Designs and estimates promptly furnished for all kinds of buildings for the handling and storage of grain in any locality.

630 Monadnock Building, Chicago, Ill.

Riter-Conley Mfg. Co.,

Manufacturers, Engineers, Contractors.

Grain Elevators of Steel,

ALSO

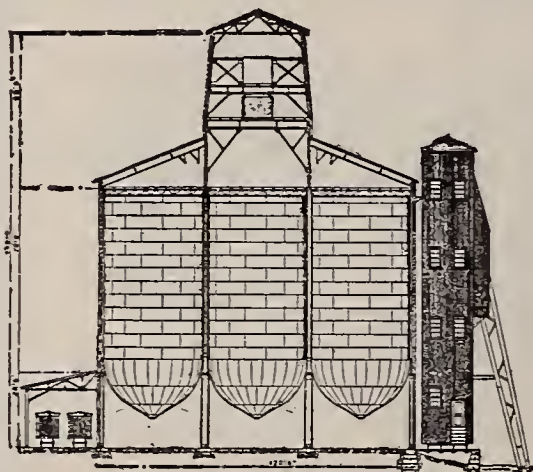
Gas Holders with Steel Tanks

Water and Oil Tanks, Steel Buildings, Steel Stacks and Steel Construction of Every Description.

Designed, Furnished and Erected in All Parts of the World.

General Office, Water Street, Pittsburg. New York Office, Trinity Building, 111 Broadway.

LONG-DISTANCE TELEPHONE CONNECTIONS



Cross-section of Great Northern Elevator furnished by us at Buffalo, N. Y. Three million bushels' capacity. Steel throughout.

LUMBER FOR ELEVATORS

The Roy Lumber Company
MANUFACTURERS
NICHOLASVILLE, - KY.

DUST! DUST!



GIBB'S PATENT DUST PROTECTOR is invaluable to operatives in every industry where dust is troublesome. It has been thoroughly tested for many years in every kind of dust and is the only reliable protector known. Perfect ventilation. Nickel-plated protector, \$1, postpaid. Circulars free. Agents Wanted.

GIBB'S RESPIRATOR CO.,

"B," 124 East Ave., Oak Park (Chicago), Ill

A "WANT AD" in the "AMERICAN ELEVATOR AND GRAIN TRADE" will do the business.

There Are Reasons Why?

Read the list of Elevators using the

HALL Signaling Distributor



(sent free) and notice that they are practically all located where grain is raised in large quantities and handled quickly. There are reasons why it is selected over all its competitors; you may be standing in your own light by not learning what they are—may we tell you?

6-inch, 8 ducts

NON-MIXING

Hall Distributor Co.

506 First National Bank Building
OMAHA, NEB.

James Stewart & Co.

CONTRACTORS

*Designers and builders of Grain Elevators
in all parts of the world.*

STEEL BRICK WOOD
CONCRETE TILE

Grain Elevator Department

1811 FISHER BUILDING

CHICAGO

W. R. SINKS, Mgr. R. H. FOLWELL, Engr.

We also do general contracting, and have offices in
the following cities.

Write or call on any of them.

CHICAGO, ILL., 1811 Fisher Bldg.

ST. LOUIS, MO., Lincoln Trust Bldg.

NEW YORK, 130-137 Broadway

NEW ORLEANS, LA., Hibernia Bank Bldg.

PITTSBURGH, PA., Westinghouse Bldg

LONDON, ENGLAND, Savoy Hotel

Not the Biggest Elevator in the World

BUT THE BEST

Grain Elevators
of Fireproof Brick
Construction

In Any Design

Write for Plans and Estimates

S. H. Tromanhauser

Room 3, Old Chamber of
Commerce Building

Minneapolis, - Minnesota

E. A. BRYAN CO.



Designers and Builders of Any Kind of
STEEL ELEVATORS

Chicago Office:

1018 First National Bank Bldg.

Works;
Harvey, Ill.

On Belt Line connecting with
all Chicago Railways.

G. T. HONSTAIN

Successors to HONSTAIN BROS., Contractors and Builders of

GRAIN ELEVATORS



Exchange Elevator built by G. T. Honstain, Minneapolis.
Fireproof storage capacity 250,000 bushels.
Working house capacity 150,000 bushels.

518 Corn Exchange Bldg.
MINNEAPOLIS, MINN.

Nebraska City & Ill. Ele. Co.

Chicago, 2,000,000

Bartlett, Frazier Co.

Chicago, 1,000,000

H. Rogers Co.

St. Louis, 500,000

F. H. Peavey & Co.

Minneapolis, 1,000,000

S. S. Linton & Co.

Minneapolis, 650,000

S. S. Linton & Co.

Minneapolis, 450,000

Interstate Grain Co.

Minneapolis, 500,000

City Elevator Co.

Minneapolis, 400,000

Security Grain Co.

Minneapolis, 400,000

Royal Milling Co.

Great Falls, Mont., 100,000

Jennison Bros.

Janetville, Minn., 100,000

Four hundred country eleva-
tors from 10,000 to 50,000.

The BARNETT & RECORD CO.

416 CORN EXCHANGE, MINNEAPOLIS, MINN.

General Contractors and Designers of Grain Elevators, Mill
Buildings, Docks and Warehouses.

We are prepared to use all of the various kinds of elevator construction, but
recommend our special construction known as the Record-Johnson System Patent
Fireproof Semi-Porus and Glazed Cellular Tile Grain Storage Construction, covered
by the following patents and which we have exclusive control: Patents Nos
664323, 664324, 664325, 692544, 713104.



The following is a partial list of owners and capacity of plants which we have built in the last
four years under these patents:

	Bushels.		Bushels.
Great Eastern Elevator, Minneapolis,	1,000,000	Northwestern Yeast Co., Chicago,	300,000
St. Anthony Elevator Co., "	2,200,000	Canadian Northern Ry. Co., Port	
North Star Malting Co., "	500,000	Arthur,	2,250,000
Victoria Elevator Co., "	250,000	David Stott Milling Co., Detroit,	200,000
Frisco Ry. Elevator, Kansas City,	700,000	Pabst Brewing Co., Milwaukee,	250,000

We have under construction at the present time the following plants:

Schlitz Brewing Co., Milwaukee,	550,000	Texas City Imp. Co., Texas City, Tex.,	500,000
Washburn-Crosby Milling Co., Buffalo,	300,000	Millhouse Mills Co., Philadelphia,	200,000

The following are a few of our largest wood-constructed elevators:			
Calumet Elevator, Chicago,	1,000,000	Maple Leaf Elevator, Kansas City,	1,000,000
Minnesota Annex, Chicago,	1,000,000	Burlington Elevator, St. Louis,	1,000,000
C. St. P. M. & O. Ry. Co., Itasca,	1,125,000	Grand Trunk Elevator, Portland, Me.,	1,000,000
Belt Line Elevator, Superior,	2,500,000	F. H. Peavey & Co., No. 1,	1,750,000
Superior Terminal, Superior,	2,500,000	Interstate Elevator, Minneapolis,	1,000,000
Pittsburg & West Ry., Fairport, O.,	1,000,000	Texas Pacific Ry. Co., Westwego, La.,	1,000,000
United States Milling Co., Duluth,	1,000,000	Hoosac Tunnel, Charlestown,	1,000,000
Empire Elevator Co., Minneapolis,	2,500,000	And hundreds of smaller houses.	

WRITE US FOR ESTIMATES

THERE'S NOTHING SO BEWILDERING

as to have an elevator that gets
out of shape and repair just
when you get busy.

There's Nobody that builds a
better or more simple yet
efficient elevator than we do.
Investigate our claim.

BURRELL ENGINEERING & CONSTRUCTION CO.
263-265 La Salle Street, Chicago



STEEL STORAGE and ELEVATOR CONSTRUCTION COMPANY BUFFALO, N. Y.



1,000,000-bushel fireproof Grain Elevator constructed of steel, for the Harbor Commissioners of Montreal, Canada.

**Twenty Million Bushels Capacity of Our Construction
Now in Use.**

NOTHING TOO LARGE

NOTHING TOO SMALL

W. S. CLEVELAND & CO. Fireproof Construction a Specialty



PLANS AND ESTIMATES FURNISHED
Telephone Main 1843

Corn Exchange,

MINNEAPOLIS

Phone
Monroe 1614 **OLSON BROTHERS & CO.**
ENGINEERS and CONTRACTORS
Grain Elevator Construction Power Transmission
Elevating and Conveying Machinery
160-162 N. Sangamon Street
CHICAGO

JNO. F. ROESER, Exeter, Neb.
Architect and Designer of
Modern Grain Elevators
Plans and specifications furnished on application

FRED FRIEDLINE
Architect and Engineer
GRAIN ELEVATOR BUILDER GRAIN HANDLING PLANTS
Special Construction in Reinforced Concrete Tanks and Working Houses
Local and Long Distance Telephone, Harrison 667
503 TRADERS BUILDING - - - CHICAGO, ILLINOIS

P. H. PELKEY
118 S. Lawrence Avenue - - - WICHITA, KAN.
CONTRACTOR FOR
GRAIN ELEVATORS
ALSO
Full Stock of Elevator and Mill Supplies and Scales

ALLEN & SLYKER
CONTRACTORS AND BUILDERS OF
Grain Elevators, Feed Mills,
Warehouses and Mill Buildings
420 New Nelson Bldg. Kansas City, Mo.

Modern Grain Elevators
ANY STYLE AND CAPACITY
DESIGNED AND BUILT BY
L. O. HICKOK 201 Flour Exchange,
MINNEAPOLIS, MINNESOTA

MINNEAPOLIS STEEL AND MACHINERY CO.

Designers and Builders of

STEEL ELEVATORS



1,000,000 Bu. STEEL ELEVATOR
INDEPENDENT ELEV. CO. OMAHA, NEB.

Here is a picture of another of our **Modern Fireproof Elevators** just completed at Omaha, Neb. We have the **Best Equipment in America** for this work. Our Engineers have had experience and we can make everything in our own shops.

We DESIGN the Plant
We FABRICATE and Erect the Steel
We MANUFACTURE and Install the Machinery

Barnard & Leas Mfg. Co.

MOLINE, ILLINOIS

*Designers and
Builders of*

ELEVATORS

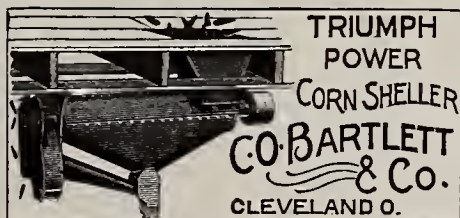
*in Wood, Steel
and Concrete*

Plans and specifications for elevators
of all kinds and capacities furnished.

Write for further particulars

Classified Ads

in this paper reach the men
who are in the market for
Elevators, Machinery, Etc.
RATES ON APPLICATION



J. B. DUTTON'S Patent Automatic Grain Scale.

FOR USE IN

ELEVATORS, DISTILLERIES, MALT HOUSES, FLOUR MILLS, ETC.

ACCURATE AND RELIABLE AT ALL TIMES. SCALES SENT ON 30 DAYS' TRIAL.
SEND FOR CIRCULAR AND PRICE LIST.

Address

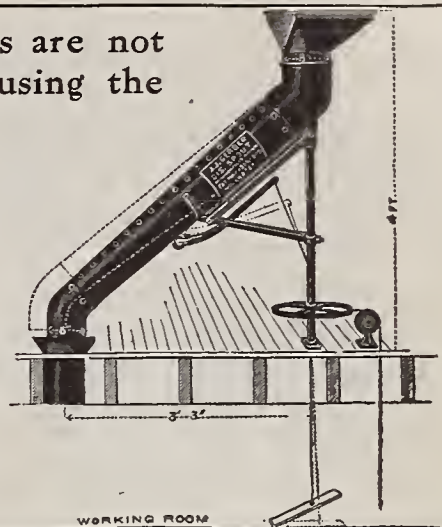
J. B. DUTTON, 1026 and 1028 Scotten Ave., DETROIT, MICH.

If your distributing spouts are not
satisfactory, you are not using the

Gerber Improved Distributing Spout

MADE AND SOLD BY

J. J. GERBER
MINNEAPOLIS, MINN.



N. A. GRABILL

Contractor and Builder of

MODERN COUNTRY
GRAIN ELEVATORS

Get My Plans and Estimates

DALEVILLE

INDIANA

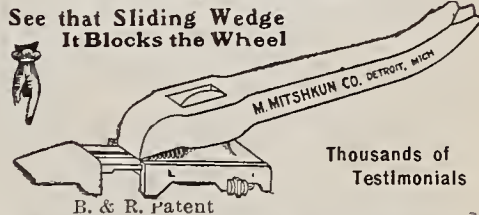
GIANT CAR MOVER

Manufacturers' \$3.00

Price . . . EACH

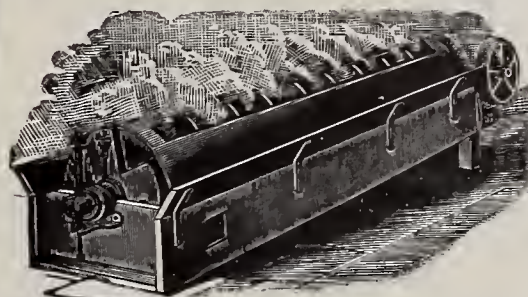
Cash with Order or by Express C. O. D.

See that Sliding Wedge
It Blocks the Wheel



See "THE RAILWAY EQUIPPER"
Our Monthly Publication, Mailed Free
M. MITSHKUN CO., - Detroit, Mich.

WHY NOT USE THE ORIGINAL CUTLER STEAM DRYER,



Which is also a successful

Wheat Heater or Temperer
or Dryer for Washed
Wheat or Bran.

It leaves the Wheat in Perfect Condition for the Rolls. Will also dry
Malster's, Brewer's and Distiller's Wet Grain.

Not an Experiment. In successful use 25 years drying
CORN MEAL AND HOMINY,
BREWERS' GRITS AND MEAL,

BUCKWHEAT, RICE AND

ALL CEREAL PRODUCTS.

ALSO SAND, COAL DUST, GRAPHITE AND CLAY AND ORE OF ALL KINDS!

Automatic in operation, requiring no attention. Double
the capacity of any other Dryer sold for same price.

THE CUTLER CO., North Wilbraham, Mass.

JEFFREY ELEVATING CONVEYING MACHINERY



Standard Elevator Buckets

For Handling Grain, Cereals, Flour, Seeds, Etc.

Our specialties include: Chains, all styles, Sprocket Wheels, Elevator Buckets, Boots, Bolts, Spiral Conveyors, Cable Conveyors, Rubber Belt Conveyors, Package Conveyors, Barrel Elevators, Keg Elevators, Shafting, Hangers, Pulleys, Collars, Gearing, Labor-Saving Devices of all kinds. Send us specifications of your wants in our line; we can probably save you some money. For catalogue address

THE JEFFREY MFG. CO., Columbus, O.

CLEVELAND ELEVATOR BUCKET CO., Manufacturers of the "FULLER" PATENT STEEL ELEVATOR BUCKETS



Suitable for Mills, Elevators, Ear Corn, Cobs, Clay, Ores, Broken Stone, Coal, Sand and other extra heavy substances. General Office and Works: 225 St. Clair St., Cleveland, O., U. S. A.



BE SURE

To equip your Grain Elevator Building with our light self-lifting passenger lifts. Strong and substantially made.

INEXPENSIVE, QUICK

No more work climbing stairs. Cost no more than stairways and take up one-quarter the room. Correspondence invited.

SIDNEY ELEVATOR MFG. CO.

Sole Manufacturers SIDNEY, OHIO



Sample Size LAUR'S Bag Patching CEMENT

Prepared Expressly For
Patching Bags
and Sacks

This sample will patch 10 to 15 bags. Sent on receipt of 5c in stamps to pay postage.

No Heating Required

Guaranteed to Give Satisfaction or Money Refunded.

Sent prepaid by Mail or Express on receipt of price.

QUART \$1.40 GALLON \$4.50

Testimonial

Saginaw, Mich. Aug. 31, 1903
W. E. Laur & Co., Detroit, Mich.

Gentlemen:—Replying to yours of the 31st, we can cheerfully recommend your Bag Cement to anyone requiring a preparation for mending cotton or jute bags. It is the cheapest and most effective bag mender that we have found. Every mill and elevator should be supplied with the cement. Yours truly,

Saginaw Milling Co.

Dic. H. W. C.

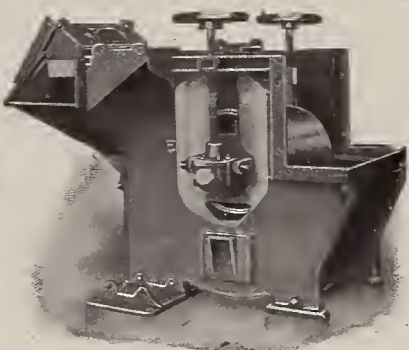
Henry W. Carr,
Vice-Pres. and Mgr.

Mfd. and Sold only by

W. E. LAUR & CO.

45 State St. DETROIT, MICH.

HALL DISTRIBUTOR CO.
506 First Nat. Bank Bldg. OMAHA, NEB.



YOUR DESIGNER

is obliged to equip your elevator with cups, belt and leg **DOUBLE** the size necessary, because he knows you can't run the cups over half full on the average. They will choke if you do! All this equipment could be half the size, and the cups run heaping full all the time, by using a

Hall Non-Chokable Boot

and do the work quicker and better.

BEST SCALES IN THE WORLD

Howe Trucks,
Grain Scoops,
Grain Testers,
Grain Scales,
Letter Presses,
Way Bill
Presses



Harrison
Conveyor,
Harrison
Elevators
for handling ear
corn, grain, coal,
ashes and all
kinds of material

HOWE U. S. STANDARD SCALES, all kinds and sizes.

The Ball Bearing Scale—No Friction on Knife Edges.

HOWE Gasoline
Engines.
Something
always on the move.



WHY not be sure
on weights?
Howe scales
are absolutely true
scales.

CHAMPION STANDARD SCALES, all kinds and sizes.

HOWE GAS AND GASOLINE ENGINES

SECOND-HAND REPAIRED SCALES of standard makes and sizes.

We repair all makes of scales and trucks, and guarantee our work—Send for catalogues and prices.

ST. LOUIS
CLEVELAND

THE HOWE SCALE CO. OF ILL., Chicago.

MINNEAPOLIS
KANSAS CITY

YES, SIR!

We'd be mighty glad to quote you any time for anything in the way of

FLOUR MILL and ELEVATOR SUPPLIES

And we'll guarantee that if we fill your order you'll be satisfied in every way. What more could you ask for? Write us. We do Roll Corrugating and Grinding and manufacture the celebrated Northway Feed Mill.

STRONG & NORTHWAY MFG. CO.

MINNEAPOLIS, MINN.

N. W. Agts. for Invincible Cleaners and Richmond Dust Collectors

The Business Man's Train

BETWEEN

Chicago and New York

IS

"THE PENNSYLVANIA SPECIAL"

PIONEER 18-HOUR TRAIN

WHICH RUNS EVERY DAY OVER

The Pennsylvania New York Short Line

Leaving Chicago, Union Station, 2:45 p. m.

Arriving New York 9:45 next morning.

Returning leave New York 3:55 p. m.

Arrive Chicago 8:55 a. m.

Train is equipped with Vestibuled and Electric Lighted Library, Smoking, Dining, Sleeping and Compartment Observation Cars.

SEVEN OTHER DAILY TRAINS

Chicago to New York

For time of trains Pittsburgh, Baltimore, Washington and Philadelphia, call at City Office, 248 South Clark St., or address

G. G. BELTZHOVER,
District Passenger Agent,
Chicago, Ill.

C. L. KIMBALL,
Asst. General Passenger Agent,
Chicago, Ill.

PLAIN GAS ENGINE SENSE

By E. L. OSBORNE

A BOOK for the man who has a gas or gasoline engine and wants to operate it to the best advantage.

The book is written in plain language and thoroughly covers the field of gas engine operation.

125 Pages of Practical Suggestions

PRICE 50 CENTS

MITCHELL BROS. CO., 315 DEARBORN STREET CHICAGO, ILL.

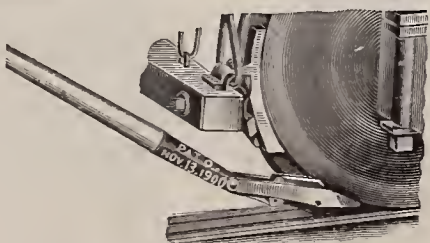
The Atlas Car-Mover

Manufactured exclusively by

The Appleton Car-Mover Co.
APPLETON, WIS., U. S. A.

Is decidedly the best and most powerful Car-Mover on the market, and supersedes all others wherever introduced.

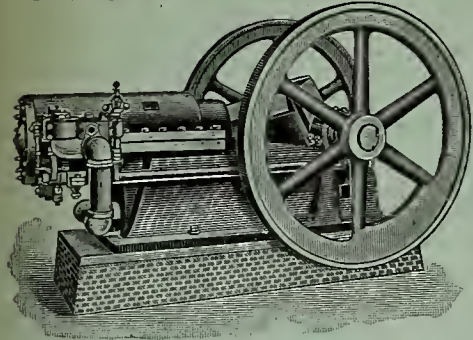
Try an "ATLAS." It Will Pay for Itself in a Few Hours' Use



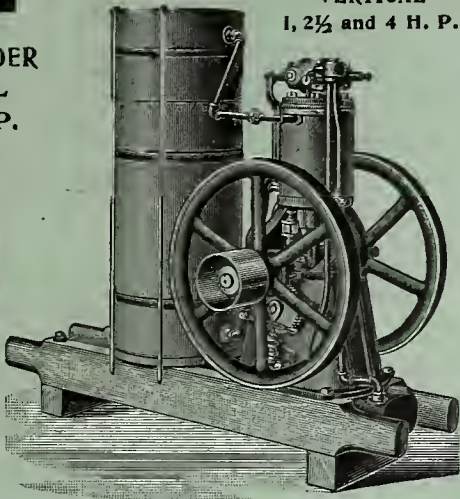
NEW ERA **GAS ENGINES**



SINGLE CYLINDER
HORIZONTAL
4 to 125 H. P.

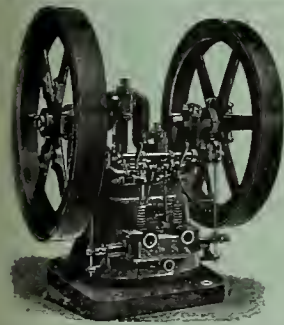


LITTLE GIANT
VERTICAL
1, 2½ and 4 H. P.



NEW ERA HORIZONTAL GAS ENGINE. 2 H. P. LITTLE GIANT VERTICAL GASOLINE ENGINE ON SKIDS.
Heavy and Substantial. First-class throughout. Thoroughly guaranteed.

FOR CATALOGUE AND PRICES, ADDRESS **NEW ERA GAS ENGINE CO., 30 Dale Ave., Dayton, Ohio**



AT LAST!
A Gasoline Engine

Which Anyone Can Run and Which is Effecting a Revolution in the Business
It is the "Master Workman." An upright engine with two cylinders. Superior to any one cylinder engine. It has no vibration and can work on a light wagon, or can be placed anywhere. All mechanism is in full view and all parts accessible. Starts Easier and quicker than any one-cylinder engine. Has More Power, consumes less fuel, occupies less space, 2, 3, 4, 5, 6, 8, 10 and 16, 18, 20 Horsepower. Less complicated and has fewer parts than one cylinder engines. This is the 52d year of its manufacture, and Their Guarantee is absolutely to be relied upon. Every engine is sold on honor.

Agents and Buyers Wanted. Send for catalog. Mention this paper.
THE TEMPLE PUMP CO., 15th Place, Chicago, U. S. A.
Mfrs. of the Celebrated Diamond Windmills, also full line of Pumps, including Well Perforating Pumps.

The "Lauson" Gasoline Engine

Frost proof—easy starting—perfect cooling, small water supply, simplicity and economy are some of the special features of our engines. Adapted to all uses and built in three types. For ELEVATOR and FARM work it stands preeminent and in a class by itself.

Let us tell you more about it. Write to-day for our large free catalog. Dealers wanted in unoccupied territory. It costs you nothing to investigate. Mention this paper

"LAUSON" Special on Skid
THE JOHN LAUSON MFG. CO., New Holstein, Wisconsin



The Best of Everything

Excellent Through Train Service to all points
North, West, and Northwest, via The
Chicago & North-Western Ry.

THE OVERLAND LIMITED

A magnificent electric-lighted train, less than three
days Chicago to San Francisco, daily.

THE COLORADO SPECIAL

One night Chicago to Denver. Only two nights to
Denver from the Atlantic seaboard.

THE NORTH-WESTERN LIMITED

An electric-lighted daily train between Chicago, St.
Paul, and Minneapolis.

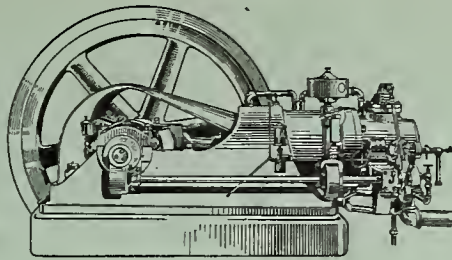
THE DULUTH-SUPERIOR LIMITED

A luxurious electric-lighted train to the Head-of-the-
Lakes, daily.

Through trains Chicago to Cedar Rapids, Des Moines,
Mason City, Sioux City, Council Bluffs, Omaha, The
Black Hills, Denver, Salt Lake, San Francisco, Los
Angeles, Portland, St. Paul, Minneapolis, Duluth,
Superior, Ashland, and the Iron and Copper Country.

W. B. KNISKERN, Passenger Traffic Manager, CHICAGO, ILL.

N.-W. 582

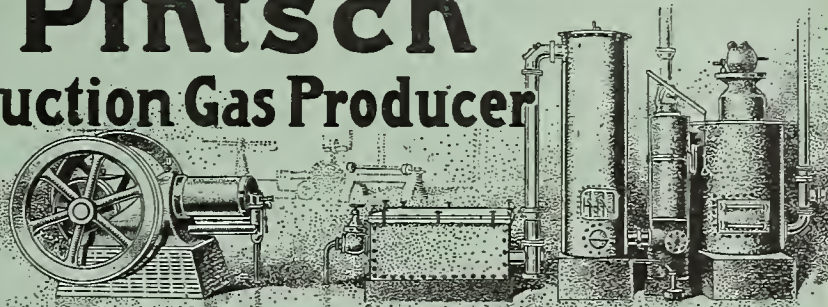


**OLDS
Engines**

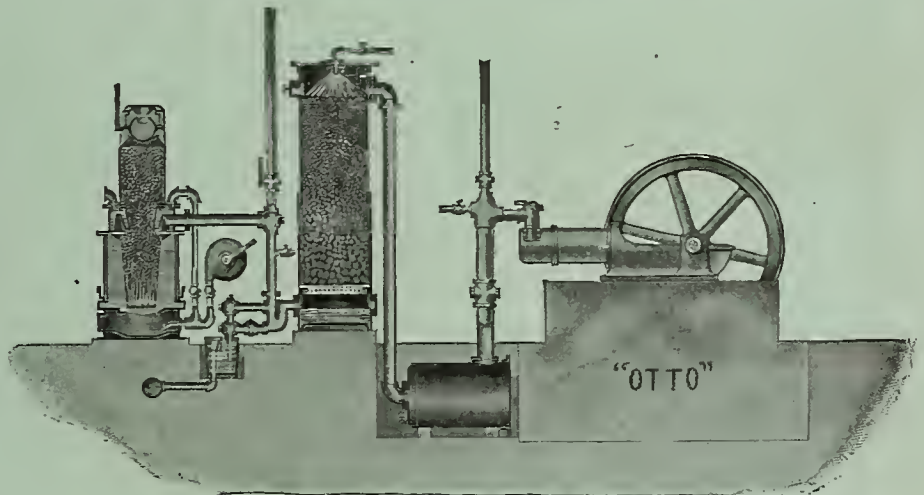
OLDS Gas Engines and Pintsch Suction Gas Producers are built in the same plant—the engines are simple, economical and reliable (2 to 1,600 h. p.—producers 2 to 2,000 h. p.) and save 50 to 75 per cent of your fuel cost. We know each complete plant (producer and engine) will run right before it leaves the factory, perfectly adapted to the coals you will use. Operating costs are 1-3 to 1-5 of steam, ½ of gasoline. Especially adapted for grain elevators. Three-fourths-inch shells where others use one-eighth inch; every elbow, cross or tee fitted with cleaning bores; double closing changing hopper; special shaking grates that remove clinker troubles.

OLDS GAS POWER CO., 952 CHESTNUT ST., LANSING, MICHIGAN
Formerly Olds Gasoline Engine Works

**Pintsch
Suction Gas Producer**



**The "Otto" Suction Gas Producer Plant
Tested By a Disinterested Expert**



UNIVERSITY OF PENNSYLVANIA
January 26, 1906

The Leeds & Northrup Co., 259 N. Broad Street, Philadelphia.

Dear Sir:

I wish to submit the following report of the test conducted by me on the Otto Gas Engine and Suction Producer installed in your factory at Fishers.

A twelve-hour test was run on January 23, 1906. The engine ran continuously through the twelve hours, developing 27.9 horsepower on the brake. This load was carried at all times; poking and cleaning the fire did not have any appreciable effect on the speed of the engine. The average speed during the run was 226.6 revolutions per minute.

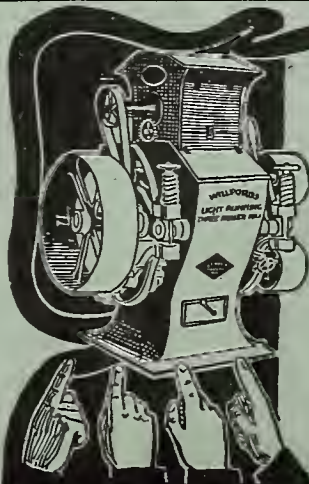
The coal used was Lykens Valley Pea Coal. The total quantity of coal used in the twelve hours was 397.2 lbs., or 33.1 lbs. per hour. This gives a coal consumption of 1.19 per brake horsepower per hour, which is well within the contract requirement of 1.5 lbs. of coal per actual or brake horsepower hour.

Very truly yours,

(Signed) H. E. Ehlers.

OTTO MACHINERY MAKES GOOD ALL GUARANTEES!

**THE OTTO GAS ENGINE WORKS,
PHILADELPHIA, PA.**



**4 GOOD POINTERS
ON THE**

Willford Three-Roller Feed Mill.

- (1) It is Easy to Handle.
- (2) It is Strong and Durable, but Simple.
- (3) It will Grind the Most Feed with the Least Power.
- (4) It can Always be Relied Upon.

Write for Circulars and Prices.

**WILLFORD MANUFACTURING CO.,
303 3d St. South, MINNEAPOLIS, MINN.**

4-Hole Corn Sheller

Cozad, Neb., December 18, 1905.

Charter Gas Engine Co.,
Sterling, Ill.

Gentlemen:—

I operate a 4-Hole Corn Sheller this Winter and find that the Charter of 10 H. P. just plays with it.

I will say this—that the Charter Engine will pull more, horse for horse, than any other engine I ever saw. Everyone that has seen my engine working says that it is the best engine that ever came to this locality.

Yours respectfully,
D. W. ARNOLD.

Send for Catalogue

State Your Power Needs

CHARTER GAS ENGINE CO.

400 LOCUST STREET,

STERLING, ILL.



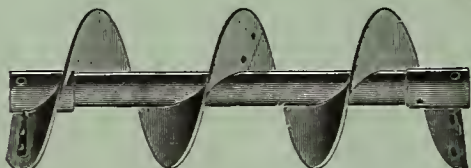
Moore & Lorenz Co.,

115-123 South Clinton Street,
CHICAGO, ILL.

MANUFACTURERS



M. & L. Conveyors
Salem Buckets
Steel Grain Buckets
Steel Corn Buckets
Tin Mill Buckets



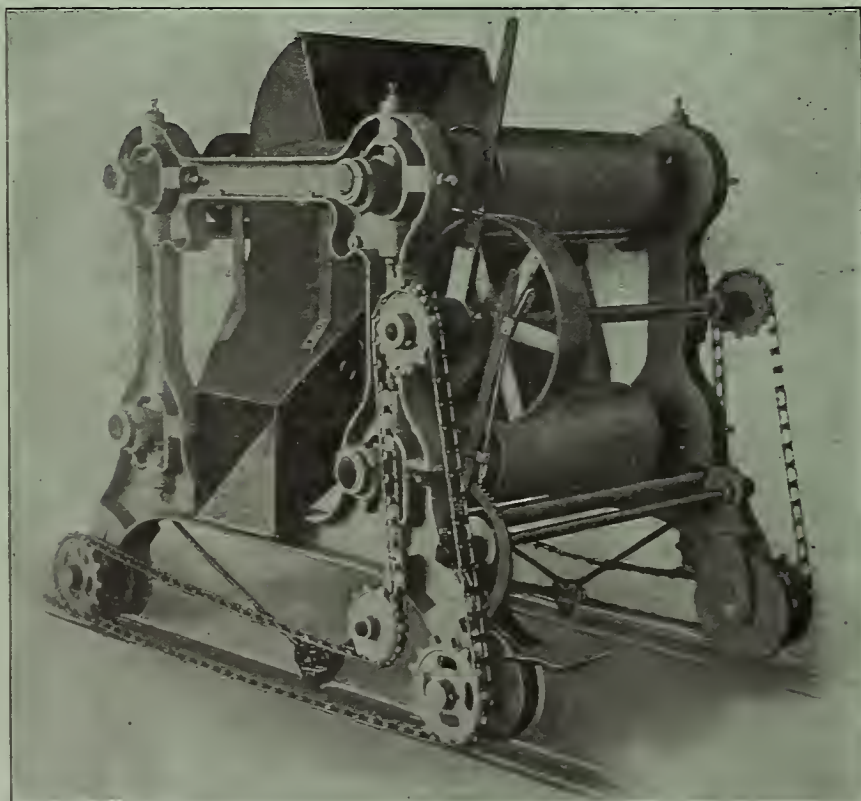
Elevator Bolts
Elevator Boots
Turn Heads
Flexible Spouts
Steel Spouting

SAFETY CUT-OFF AND ALARM MACHINES.

Send for Catalog and Prices.

Our Goods are the Best on the Market.

“WELLER” SPECIALTIES

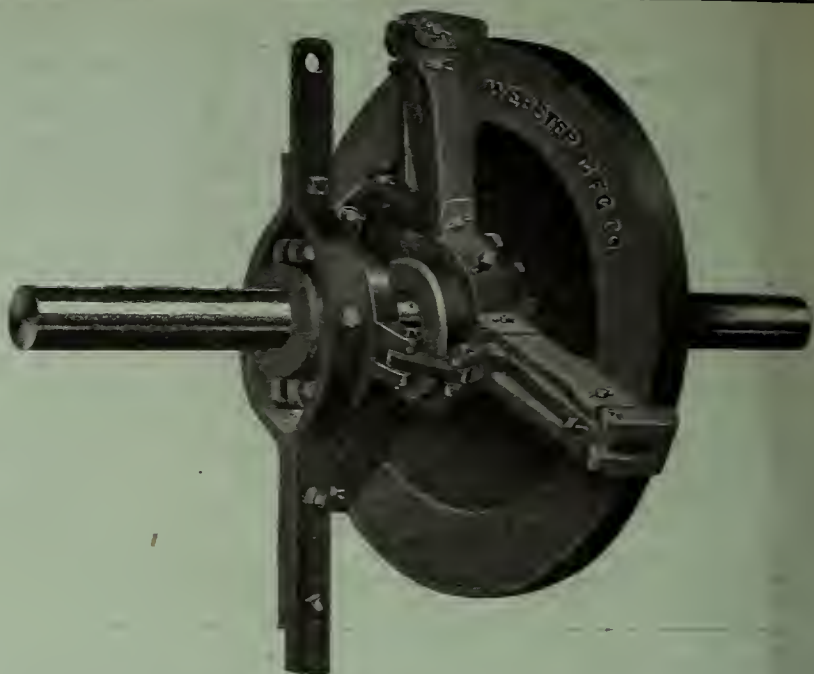


Weller Reversible Self-Propelling Tripper With Ball and Socket Adjustable Bearings.

MODERN GRAIN ELEVATOR MACHINERY

SEND FOR NO. 18-C CATALOG

WELLER MFG. CO., CHICAGO, ILL.



Quality Endorsed by Quantity

Over 3,500 in actual use

The Webster “Steel Plate” Friction Clutch

It gives great power in small space.
It has large wearing surface and is easily
adjusted when worn.
Especially desirable for high-speed power.

Webster M'f'g. Co.

1075-1097 West 15th Street

CHICAGO

Kingsland-Kay-Cook Mfg. Co.

ST. LOUIS

Manufacturers of

**MODERN GRAIN ELEVATOR
MACHINERY**

Two Large Factories

See Ad., Page 461

CHICAGO OFFICE: 401 Monadnock Bldg.

Are You Interested in Equipment

which reduces operating expenses? I have an appliance which will do the work now done by your fireman; will lessen the fuel bill, reduce the insurance rate, and in addition will give you a clean plant.
The expense of installing is nominal and I guarantee good returns on the investment. Write for booklet, describing my device.

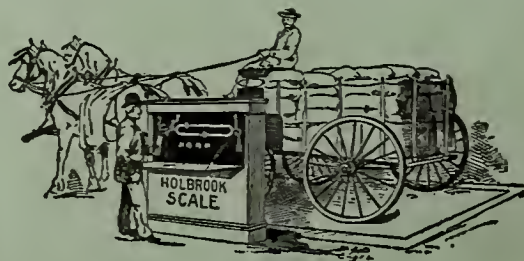
H. L. DAY

1118-26 Yale Place,

MINNEAPOLIS, MINN.



CALLAHAN GAS and GASOLINE ENGINES



Grain Elevator Machinery
and Supplies, Wagon, Hop-
per, Portable and Dump
Scales.

C. D. HOLBROOK & CO.

305 S. Third St., Minneapolis, Minn.